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East Europe Report

ECONOMIC AND INDUSTRIAL AFFAIRS

No. 1918

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DEVELOPMENT OF HUNGARIAN-SOVIET TRADE VIEWED

Budapest VILÁGGAZDASÁG in Hungarian 29 May 79 pp 1, 3

[Report by E. M.: "Hungarian-Soviet Trade Is Developing Well--This Year's Target is 4.8 Billion Rubles"]

[Text] Hungarian-Soviet economic relations and their fast development guarantee most raw materials necessary for supplying and developing the national economy. At the same time, the Soviet market is indispensable for Hungary, in developing an economical product structure and production line because of the small domestic market. Dr István Végi, chief of main department of the Ministry of Foreign Trade, made his statements about the development of Hungarian-Soviet trade and about this year's trade.

Ruble accounted trade in 1978 reached 4.3 billion rubles. If we look at Hungarian deliveries, a significant item was the 6,000 Ikarus buses and further, more than 30,000 rear axles for diesel and trolley buses and a substantial quantity of spare parts for the Lada passenger cars, 100 units of cranes and barge-derricks, and telecommunication products worth about 100 million rubles. Hungarian deliveries played a significant role in supplying the Soviet population. Sales of Hungarian ready-made clothing exceeded 70 million rubles and an additional 13 million pairs of Hungarian shoes, 60 million rubles worth of liquor and 68 million rubles worth of canned vegetables reached Soviet consumers.

In exchange for the above, incomplete, list of Hungary's exports, we imported, for the most part, raw materials indispensable for our industry. About 1 million tons of coal and coke, and more than 7 million tons of crude oil were imported. The iron ore, for instance, processed by Hungary's metallurgical industry, came, almost in its entirety, from the Soviet Union. In meeting domestic energy demands, the 4.4 billion kilowatt-hours of electric energy [imported] played an important part. The 650,000 tons of rolled products, 15,000 tons of copper, 11,000 tons of lead and other non-ferrous metals also played an extensive role in the material supply of our machine industry. The results of Hungary's agriculture, especially in the area of plant cultivation, are based to a large extent on deliveries of apatite and various processed artificial fertilizers originating from Soviet mines. The imports of timber continued to be significant; we bought last year, for instance, 1.1 million cubic meters of lumber and 850,000 cubic meters of sawn pine products.

The target of the 1979 interstate agreement is a trade amounting to 4.8 billion rubles. A study of this agreement's structure reveals that the Soviet Union's market, as an outlet for certain Hungarian industrial products is becoming more and more significant. Sixty percent of our exports are machines and equipment. Highway and railway conveyances, telecommunication equipment, various precision instruments, and computers and computer parts make up the largest portion of these. This year, for instance, Hungarian industry will deliver to its partner 6,050 units of various buses, 410,000 complete units of parts for cars, rear axles for trolley buses and other vehicles worth 19 million rubles, computers and computer parts worth 66 million rubles, and various telecommunication products worth nearly 138 million rubles.

According to this year's quota, we will deliver ready-made clothing and knitwear worth 127 million rubles. Agricultural exports and food products in 1979 include 17,000 tons poultry, 7,600 tons of canned meat, 241,000 tons of canned vegetables and fruits, and 290,000 tons of fresh fruits.

With regard to our imports, the product composition, in 1979, also, is characterized by the fact that two-thirds of them are energy or energy sources, raw materials, and semi-finished products. Thus we import 7.3 million tons of crude oil, and nearly 1.1 million tons of coal and coke. In addition, 6 billion kilowatt-hours of electric energy, 650,000 tons of rolled products, 160,000 tons of aluminum, 37,000 tons of non-ferrous metals, 1.1 million cubic meters of industrial lumber, and 850,000 cubic meters of sawn pine products are parts of our imports accounted in rubles. Gas deliveries from Orenburg have also started this year. Thus our import of natural gas this year will be 2.6 billion cubic meters.

In addition to the above, 20 subway motor cars and 25 trolley buses will arrive from the Soviet Union, to become part of Hungary's public transportation. But we will also buy 6,000 various trucks, 30 ambulances, and 40,000 Lada, 1,000 Zaporozhets and 500 Moskvitch passenger cars. The 2 TU-154 aircraft, arriving from the Soviet Union this year, will also help in our air transport. But our purchases of various computer equipment worth 13 million rubles, and of excavators and road building machinery worth 10 million, are also significant.

In the realization of the targets of our investment policies and in the updating of our industry's structure, Soviet industrial products also play a role. I will mention in this connection, only as an example, that very valuable Soviet equipment is arriving for the Paks Nuclear Plant, the converter steel mill of the Danube Iron Works and the Bélapátfalva Cement Works.

In conclusion, in talking about the ratio of specialized products, Dr István Végi revealed that last year's ratio was 37 percent in exports, and 22 percent in imports. Long-term cooperation is served by the already finished long-distance power line between Vinnyitsa and Albertirsa, connecting Hungary with the southern electric power grid of the Soviet

Union. Energy imports from the Soviets consumption will increase to 47 percent by 1980. The technical possibilities of this are guaranteed by the integration of our energy system, namely, by the Friendship I and II crude oil pipe line, the Brotherhood natural gas line, and the power line system in the electric network. A further important task is to sign other contracts of specialization with both the Soviet Union and the other socialist countries. Numerous specialization contracts will expire in 1980. We must see to it that appropriate contracts are strengthened and renewed and that the less appropriate ones are improved. The chief of main department has also added to the above that both countries must increasingly implement their contract commitments and that they should make agreements about unfilled quotas.

9414

CSO: 2500

INTERNATIONAL AFFAIRS

HUNGARY'S HAVASI DISCUSSES ECONOMIC COOPERATION WITH USSR

Moscow EKONOMICHESKAYA GAZETA in Russian No 25, signed to press 11 Jun 79
p 21 LD

[Interview with Ferenc Havasi, secretary of the MSZMP Central Committee:
"The USSR and Hungary: Broad Prospects for Cooperation"]

[Text] In connection with the official friendly visit to Hungary by the Soviet party and government delegation headed by Comrade L. I. Brezhnev, general secretary of the CPSU Central Committee and chairman of the USSR Supreme Soviet Presidium, Comrade Ferenc Havasi, secretary of the MSZMP Central Committee, gave EKONOMICHESKAYA GAZETA the following interview:

[Question] The joint statement on the further development of fraternal friendship and all-round cooperation between the CPSU and the MSZMP and between the USSR and Hungary says that "Soviet-Hungarian relations are developing successfully and dynamically in full accordance with the 1967 treaty on friendship, cooperation and mutual aid between the USSR and Hungary and the decisions of the 25th CPSU Congress and the 11th MSZMP Congress." What can you say in this connection, bearing in mind the present level of economic cooperation between our countries?

[Answer] This cooperation plays an important part in developing Hungary's national economy.

Let us turn to goods turnover and its volume and structure. For many years now it has accounted for one-third of Hungary's overall foreign trade turnover. I note that the result of the first 3 years of the current five-year plan makes it feasible to achieve a volume of reciprocal trade turnover of R21 billion in the 1976-1980 5-year period.

The trade structure created between our countries is organically linked with the conditions of the Hungarian economy's development. Processing industry output accounts for over two-thirds of our deliveries to the Soviet Union, and up to 50 percent of this is accounted for by machinery,

equipment and instruments. The Soviet Union is the biggest client for output from our machine-building industry. As a whole Hungarian goods like buses, medicines, footwear, sewn articles, meat and fruit are heavily represented in satisfying your country's import requirements.

In turn we receive many raw material commodities from the USSR. They account for 80 percent of Hungary's total imports of energy sources and 70 percent of its imports of other raw materials. Soviet deliveries comprise a considerable proportion of our imports of equipment for industrial enterprises.

We see the main trend in our countries' economic ties at the present stage in the fact that the center is shifting from the sphere of traditional commodity exchange to the sphere of capital investments, production and technical progress. That is, the integration element is being intensified. This process of the formation of long-term, plan-governed cooperation is already regulated by a whole system of intergovernmental and interdepartmental agreements.

We attach exceptional significance to the measures envisaged by the CEMA countries' long-term targeted cooperation programs. But the intensification of multilateral cooperation does not lessen the great importance of the timely and effective completion of work on the coordination of plans for our bilateral cooperation for 1981 through 1985. The main guidelines in this work are provided by summit talks. The joint statement stresses the importance of the speediest completion of the development of a long-term targeted program for production specialization and sharing between the leading sectors of the economies of the USSR and Hungary for the period up to 1990.

Considering Hungarian conditions we believe it is possible to further increase exports of agricultural and food industry products and also processing industry products meeting present-day demands, above all machine-building goods, to the Soviet Union.

[Question] What are the prospects for the further development of production specialization and sharing between the CEMA countries?

[Answer] Production specialization and sharing within the CEMA framework enables Hungary to develop the economic sectors which accord most fully with our conditions and traditions. And these are primarily the aluminum industry, automobile building, instrument building, the communications and pharmaceutical industries, several sectors of the chemical industry and also agriculture.

Cooperation with the CEMA countries and above all with the Soviet Union enables us to develop these sectors in a plan-governed way and for the long term, on the basis of specialization and sharing.

Automobile building is one of the main spheres of our cooperation with the CEMA countries. Hungarian industry specializes in the production of buses and various components and units for automobiles, manufacturing them in profitable series. Within the framework of this specialization Hungary has long been supplying its partners--mainly the USSR and the GDR--with modern, high-quality buses. A considerable number of units, for instance rear axles, are exported to a number of CEMA countries. Hungary produces items component kits in series of several hundred items of each sort for Soviet Zhigulis and Polish Fiats. At the same time Hungary meets its own requirements for passenger cars and various other motor vehicles mainly from imports from the fraternal countries.

Cooperation within the CEMA framework has enabled Hungary to achieve high production results in instrument building and the communications and computer industry. On the basis of existing agreements on production specialization Hungary exports various modern medical apparatus, laboratories for the needs of agriculture and the food industry, electrical engineering, measuring and geodesic instruments and also instruments operating on isotopes to the USSR and other CEMA countries.

Broad cooperation with the USSR and--to a lesser extent--with Poland enables Hungary to make economical use of our bauxite stocks. Hungarian-Soviet cooperation in the production of olefins has helped us to lay the foundation for the industrial production of plastics.

Cooperation established in agrochemistry in recent years has promoted the development in Hungary of a new specialized technical sector--the production of bioactive chemicals.

Broad production specialization is carried out with each of the European CEMA countries in the pharmaceutical and rubber industry. Supplying our national economy with machinery Hungary cannot do without specialized deliveries of railroad rolling stock, aircraft, tractors, highly productive grain combine harvesters, and other agricultural machinery, modern construction equipment and machine tools for the textile industry from the CEMA countries.

Progress in production integration is graphically revealed by the following figures: in 1978 some 34 percent of Hungarian exports to the CEMA countries and 20 percent of Hungarian imports from these countries were made up of articles delivered under agreements on specialization and production sharing. But the same figure for exports of Hungarian machine building output to the CEMA countries approaches 60 percent.

[Question] The development of bilateral and multilateral economic ties today is no longer contemplated outside long-term targeted programs. What place are they acquiring in Hungary's economic ties with the Soviet Union and the other CEMA countries?

[Answer] In Hungarian-Soviet economic ties it is the energy aspects which are traditionally important to us. We are making efforts aimed at the all-round rational utilization of our own fuel and energy resources and the economical expenditure of electricity, but the need for imports of these resources continues to grow. These requirements are covered mainly by the CEMA countries under long-term agreements.

Hungary took part in the installation of the Soyuz gas pipeline through which it will obtain a considerable quantity of natural gas as early as 1979. We are taking part in rapidly developing cooperation in the sphere of electrical power engineering, primarily nuclear power engineering. The 750 electric power transmission line between Vinnitsa and Albertirsa has been commissioned. [sentence as received] Multilateral and Hungarian-Soviet bilateral agreements have recently been signed on whose basis Hungary will take part in the installation of the Khmelnitskiy AES and the construction of a new sector of the 750-kilovolt power line for the combined energy system in the period 1979 through 1985. These projects will enable Hungary to increase electricity imports by a further 2.4 billion kilowatt-hours a year.

Under the long-term agreement with the Soviet Union we are receiving considerable aid in installing Hungary's first nuclear power station in the Paks region and at the same time--in the interests of the reliable satisfaction of our future requirements--we are taking part, on the basis of specialization and sharing, in the production of machinery and equipment under programs for the development of nuclear power.

To be able to increase its raw material imports Hungary is taking part in the construction of the Ust-Ilimsk pulp plant, the Kiyembayev asbestos mining and enrichment combine and the Kingisepp ammonium phosphate plant on Soviet territory and also in the expansion of capacities for enriching iron ore and producing ferro-alloys.

The development of integration ties between our countries' chemical industries is basically defined by the agreement in the sphere of agrochemistry for 1976 through 1990. By receiving energy-intensive chemical articles, primarily mineral fertilizers and plastics from the Soviet Union, Hungary will deliver in return to the USSR less energy-intensive plant protection agents.

Long-term agreements with the Soviet Union play an important part in the development and enhancement of the export potential of Hungarian machine building. About 30 intergovernment agreements on specialization and sharing are in operation here. In the agricultural sphere an agreement has been concluded on Hungarian deliveries of horticultural produce for the period up to 1990.

The long-term programs are a reliable way to boost the effectiveness of the national economy of each socialist country taking part in the international socialist division of labor.

In conclusion I want to repeat the overall conclusion contained in the joint statement regarding the results of the talks held during the official friendly visit paid to our country by the Soviet party and government delegation headed by Comrade Leonid Ilich Brezhnev: Both sides are profoundly satisfied at the results of the talks, which will serve to intensify further the international fraternity and multifaceted cooperation between the USSR and Hungary and will be a new contribution to the consolidation of the socialist community.

CSO: 1823

ECONOMIC COOPERATION BETWEEN YUGOSLAVIA, POLAND

Zagreb VJESNIK in Serbo-Croatian 21 May 79 p 2

[Article by Ilija Marinkovic, VJESNIK's permanent correspondent]

[Text] Warsaw--Two large agricultural complexes, one in the north and one in the south of Poland, are organizing this year into testing fields on which the Yugoslav heavy and general industry for agricultural machinery will undergo tests that are by no means easy.

The results achieved at test farms where Yugoslav machines and specialists will be the only ones working are supposed to confirm the quality and advantages of the IMT heavy tractors of 220 horsepower, as well as the qualities of other Yugoslav equipment in complex climatic and agricultural conditions.

Ambitious Plans

Along with the constant differences in product mix and atmospheric conditions for production, Yugoslav and Polish agricultural activities have almost identical proportions of total production in the private and the public sectors. This structure determines the average size of land holdings, and therefore by that factor itself, the organization of agricultural production, which creates ideal conditions for expanding mutual and beneficial cooperation and exchange of experience.

With the exception of the automobile industries, exchange and cooperation in the category of agricultural machinery and tractors is the most important aspect of Yugoslav-Polish economic cooperation. The Poljoopskrba organization has made a major contribution to this situation, by its fundamental testing of the Polish market and its broad offerings in the past 10 years. All important Yugoslav producers of agricultural equipment take part in this, and they have thus opened prospects for long-term cooperation.

The value of Poljoopskrba's transactions in those 10 years has increased from \$12 to \$50 million, and in this total exports and imports have been balanced to "the last groschen." According to the long-term agreement signed

in 1977, the total value of trade in 1980 is to reach \$54 million but there are plans that would lead to an even more optimistic assessment of the future in this trade.

Products that have already established themselves on Polish markets include irrigating equipment from Agrostroj in Ljubljana, drying equipment from Cer in Cacak, small tractors from Toma Vinkovic in Bjelovar, and various other agricultural machinery and equipment from such firms as SIP in Sempetra and Pobeda in Novi Sad. On the other hand, more than 50,000 Ursus tractors are working Yugoslav fields, along with combines for corn and sugar beets and hay-drying equipment.

Prospects for Cooperation

Previous experience has shown that the future of such cooperation is to be found in further specialization and industrial cooperation. The medium Ursus tractors are very suitable for Yugoslav private farms, while the Poles need motorized cultivators for hilly regions and heavy tractors for working large farming complexes. There are prospects for cooperative collaboration between Cer of Cacak and the Polish Rofama factory for the production of drying equipment that would burn coal, which due to the fuel crisis could replace machinery that uses petroleum. Similarly, the Yugoslav Minel enterprise and the Polish Spomasz firm would develop production equipment for the food-processing industry.

For 3 years Poland has been importing IMT tractors with 72 horsepower and small tractors from Toma Vinkovic of Bjelovar, and an agreement is about to be signed for the purchase of major quantities of motorized cultivators from Knjazevac. Now the time has come for an agreement on IMT 220 hp tractors, which were successfully demonstrated last year at the Poznan Fair and at specially organized seminars.

Under Polish climatic conditions, time is one of the crucial factors in achieving good crop returns, as was demonstrated this year when severe cold and floods paralyzed the mechanized equipment on agricultural lands that were equipped largely with medium tractors. Even in such conditions, on essentially swampy terrain, the powerful IMT 220 hp tractors performed their tasks with excellent success.

Scientific Testing of Effects

The Powisle complex, not far from Gdansk, set aside 7,000 hectares for a Yugoslav test farm. There Yugoslav specialists will apply new technology for the production of silage and sugar beets, using silos from the Utva firm in Pancevo. At the Glubczyce complex in southern Poland, the Yugoslav test farm will be entrusted with the production of corn and livestock feeds on 5,000-8,000 hectares.

The work of specialists with IMT 220 tractors, accessories and equipment will be monitored and evaluated by a commission composed of representatives of the

Novi Sad Institute for Agriculture and the IBMER Institute in Poland. Detailed documentation should show the economic efficiency and high profit potential of Yugoslav machines and technology that has not previously been applied in Poland.

To the degree that the experiment gives satisfactory results, it can be expected that Poland will purchase many IMT 200 hp heavy tractors annually. Such a development would bring with it the purchase of assorted accessory machinery, organization of service and training of personnel, as well as prospects for certain forms of cooperation that would satisfy Polish demand, which is considerably greater than the present production capabilities of Yugoslav industry.

Commercial collaboration has also contributed to interpersonal contacts, and certain agricultural concerns of the two countries have established fraternal relations. The most prominent are between the Belje complex and Kentrzyn in Poland, which are exchanging specialized experience as well as tourist groups and sports teams. At times such private human contacts are the vanguard of future, even more significant, commercial undertakings.

12131

CSO: 2800

SOCIALIST CAMP HAS CLEAR-CUT ENERGY POLICY

East Berlin Domestic Service in German 1005 GMT 24 Jun 79 DW

[Karl-Heinz Gerstner's Weekly Economic Review]

[Text] Last Sunday [17 June 79], I mentioned the growing mineral-oil worries of the western world. It probably did not escape your attention that this problem was extremely aggravated last week. Suddenly, the question of how the capitalist countries insure their mineral-oil supplies and how they propose to solve their energy problems in the future, has moved up to the top of their list of worries. The governments of the United States, Japan, the FRG, France, England, and also some others, last week came out with statements which indicate essential differences in the assessment of the energy problem.

The heads of government of the EEC countries met in Strasbourg without coming to terms on a uniform line of energy policy. Next week the capitalist World Economic Summit will be held in Tokyo. Contrary to the original plans the energy problem will be the number one topic. At a news conference Thursday, Japanese Prime Minister Ohira stated that this summit conference is taking place in view of the capitalist world economy which is more serious than at any time in the four preceding meetings of this nature. What Ohira listed as alarming factors was inflation, continuing unemployment and the threatening second oil crisis. The Japanese head of government said that the summit meeting will not produce any dramatic results.

The opinions are sharply divergent. The United States wants to fix oil contingents for all capitalist countries. Japan is strictly against that. France wants top prices fixed for the mineral oil. The Bonn government came out against that plan. Some want to speak in harsh terms with the OPEC countries, others urgently advise against that. Thus, the present situation of the West's energy policy is characterized by contradictions and a lack of concepts.

In a televised speech on Tuesday, French President Giscard d'Estaing announced a comprehensive austerity program. It contains more than

20 individual measures by which France's mineral-oil consumption is to be gradually reduced. The fuel-oil deliveries to the households are to be cut by 10 percent. Electricity and gas allotments to households are to be fixed. Further envisaged are intensified speed-limit controls in road traffic, and the permissible speed for trucks is to be reduced. The French automobile industry has been introduced to design the engines in such a way that they will use 10 percent less gasoline. The state institutions must cut their fuel consumption by 10 percent. The French president said that the future economic development must make allowances for the fact that crude oil will be scarce and expensive henceforth.

Meanwhile, the Belgian government likewise introduced austerity measures. The fuel-oil deliveries to households there are cut even by as much as 20 percent. In the FRG the fuel-oil prices are leaping upward. Private house owners have upped by 50 percent the heating-material advance payments of their tenants now due for the next winter. In the United States, the shortage of gasoline has entailed partial rationing; motorists are allowed to gas up only every other day in states on the East Coast. In Washington itself it has become difficult for motorists to gas up their cars because queues at gas stations are forming during the night, reaching a length of several kilometers by morning. Automobile traffic dropped by 50 percent in the past 2 weeks.

Dear listeners: The causes of these new phenomena of crisis in the capitalist countries are contradictory. In part we are seeing a real shortage, not an acute one, but one that is looming ahead in the future. The mineral-oil monopolies which, as we can see in these days, do not allow the capitalist governments to interfere in their business, are shamelessly exploiting this situation to artificially aggravate the shortage and thus jack up prices. And, they are succeeding in this, too. Thereby they jeopardize the economic relations of the capitalist countries among themselves, aggravate the capitalist crisis, and possibly conjure up new, serious tensions between the capitalist countries.

Dear listeners: You will perhaps wonder how we in the socialist camp are coping with these problems. For us, it is not easy to solve the energy problem either. This is quite clear and we do not want to play down the seriousness of this problem at all. However, we can honestly state that we in CEMA are better prepared for these problems of the future than the capitalist countries.

For many years the CEMA countries have been most intensively working on a long-term program for the energy supply for the entire CEMA area, with concrete demand-covering measures up to 1990 and, in general outlines, beyond the turn of the century. It goes without saying that the adaptation of the energy sources and energy production to the rapidly growing energy requirements has caused difficulties. Yet, such a program exists now thanks to our internationally planned economy in CEMA.

This is why we may look more calmly toward the problems that will be confronting us than the West, without, however, underrating the seriousness and the difficulties of the energy problem. I am stressing this for the third time now. By contrast to the lack of concept and, we might even say, the confusion of the West, we in the socialist community of states have an integrated, long-term energy policy in which the individual energy sources have their place, including nuclear energy, for it is impossible to make do without nuclear energy if we wish to cover the energy requirements of the next decades. The 33d CEMA council meeting scheduled for next week in Moscow will surely reflect this constructive energy policy.

CSO: 2300

DEPUTY MINISTER REPORTS FAVORABLE FOREIGN TRADE BALANCE

Sofia TRUD in Bulgarian 23 Jun 79 p 3

[Interview with First Deputy Minister of Foreign Trade Grudi Zhelev, by a representative of the newspaper TRUD, date and place not given: "The World Position of Bulgaria's Economy"]

[Text] A representative of the editors visited First Deputy Minister of Foreign Trade Grudy Zhelev, who was kind enough to answer the questions put to him.

[Question] Comrade Zhelev, how are our country's foreign economic relations developing and how is the structure of our commerce changing?

[Answer] As a result of our country's increased production and export capabilities and the peaceful policy of the Bulgarian People's Republic, our foreign economic relations are developing especially dynamically. Our partners now number 111 countries throughout the world. Socialist Bulgaria extends its hand for business contacts and cooperation with countries near and far on the basis of equality and mutual advantage. This is evidenced materially in the growth of the country's commerce. From the modest figure of 647.2 million leva in 1956, it exceeded the sum of 13.2 billion leva in 1978. Our country's balance of trade and payments with nonsocialist states wound up with a positive final result. This gives us a good basis for striking an overall balance in our trade with the nonsocialist countries this year too.

Bulgarian foreign trade structure cogently indicates the directions and main factors in the development of the Bulgarian economy. Predominant in it are machinery, equipment, industrial process lines and products of industry, a result of the latest breakthroughs of modern science and technical progress. The proportion of our total exports represented by machinery and equipment for industrial purposes increased from 3 percent in 1956 to 12.9 percent in 1960 and was 47.3 percent in 1978. It is envisaged that before the end of the Seventh Five-Year Plan in 1980 this indicator will be more than 50 percent.

Our success is that in 1978 exports of machinery and equipment exceeded imports. This shows that Bulgarian materials-handling and agricultural machinery, the products of the electronics and electrical industry, of shipbuilding, the chemical industry, of the food, wine and tobacco industries are well received in the international market and raise the prestige of socialist Bulgaria as a worthy trading partner.

[Question] Cooperation in the area of foreign trade among CEMA-member countries and above all with the Soviet Union is constantly expanding. What is new in the development of commercial and economic relations between Bulgaria and the CEMA-member countries?

[Answer] True to its international duty, the Bulgarian People's Republic was one of the initiators and founders of CEMA in 1949. Whereas state monopoly has created the organizational prerequisites for socialist foreign trade, Bulgaria's active participation in CEMA has been the main factor in our overall dynamic socioeconomic development. A direct result of this is the exceptional changes that have taken place in the country's economy, in the structure of physical production and, hence, in the rate and structure of Bulgaria's commerce.

In the rate of its socioeconomic development our country ranks as one of the first in the world. In commerce per capita Bulgaria likewise ranks as one of the first in the world. Of tremendous influence in this regard is the commerce with CEMA-member countries, which in 1978 constituted over 78 percent of the total commerce. During the 1956-1978 period this commerce increased about 30-fold. It must be noted that commerce with the USSR alone represented 56.7 percent of the country's total commerce in 1978.

Cooperation among the CEMA-member countries has now entered upon a new stage of bilateral and multilateral integration. The new integration measures, such as international long-term special-purpose programs, represent a qualitatively new factor. The measures by which these programs will be implemented will give new impetus to the development of bilateral and multilateral cooperation in the area of foreign commerce, too.

As for the new factor in our country's relations with the Soviet Union, it is that Comrades Todor Zhivkov and Leonid Brezhnev have laid out the path to new heights, a guarantee of which is the master plan that has been formulated for specialization and cooperation up to 1990 in the sphere of physical production. It is a solid basis for the expansion of trade relations between the two sister countries, an implementing expression of which is the protocol on trade between the Bulgarian People's Republic and the USSR in 1979 exceeding 6.1 billion rubles.

Our country now satisfies about 90 percent of CEMA-member countries' needs of battery-operated trucks, motor trucks, telfers, cigarettes, and a considerable portion of the needs of tomatoes, grapes and vegetables. On the other hand, our country satisfies a great part of its own needs by imports

from CEMA-member countries, and mainly from the USSR. Thus, for example, our import needs of natural gas, iron ore and steel, as well as fuel, are met almost entirely by imports from the USSR. More than half of the package units, machinery and equipment are imported from CEMA-member countries. In addition, to satisfy our people's constantly growing material and spiritual needs we have provided for imports of the most necessary consumer goods, chiefly from CEMA-member countries.

The success of our country's development in the economy, science and technology, the broadening and deepening of socialist integration between Bulgaria and the CEMA-member countries and, above all, our comprehensive closer alignment with the Soviet Union will raise the prestige of our socialist fatherland still more in the world.

6474

CSO: 2200

FIRST QUARTER PLAN FULFILLMENT IN CONSTRUCTION VIEWED

Prague HOSPODARSKE NOVINY in Czech 8 Jun 79 p 2

[Commentary by Stephan Maksa, worker of the Central Committee CPCZ]

[Text] In 1979 the construction ministries organizations' tasks are not simple. In order to realize the 15th CPCZ Congress resolutions, including the Sixth Five-Year Plan fulfillment, demanding tasks still remain to be accomplished in the investment construction field in 1979 and 1980. The plan fulfillment figures reached since this year's beginning must be also analyzed bearing this in mind.

In the first quarter, the CSR Construction Ministry's organizations have fulfilled their basic construction production tasks only at 91.2 percent, which is 19.8 percent of the year's task. The 1979/1978 index stands only at 95.8 percent and 105.5 percent of the year's plan respectively. The total shortage since the year's beginning came to Kcs 639 million. This volume is equal to five working shifts with daily production capacity of Kcs 129 million. During this whole period, altogether 29 enterprises have not been fulfilling their planned assignments.

The shortage caused by bad weather in January and February decreased in March only by Kcs 59 million due to the fact that in March the organizations exceeded the plan by 2.2 percent. The overall situation was unfavorably influenced by the performance in Prumyslove stavby Brno, whose March plan fulfillment came only to 97.1 percent and registered an additional shortage of Kcs 19 million. This situation is shared by five enterprises: Armabeton (94.5 percent), Prumstav Pardubice (97.9 percent), Prumyslove stavby Brno (93.5 percent), Stavebni izolace (98.9 percent). The biggest shortage was registered in Severoceska Konstruktiva (78.1 percent). Only two of the other production units have not fulfilled their March quotas: Montovane stavby (91.2 percent) and Pozemni stavby Praha (88.0 percent).

The relatively most complicated situation appears to be in Stavebni zavody Praha. A 9 percent average of the year's plan will have to be reached by

his enterprise every month to fulfill all its assigned tasks this year. The situation in Pozemní stavby Praha is similar, the enterprise will have to reach 8.9 percent of the year's plan every month. Considering that during the last 5 years the average monthly output in Stavební závody Praha was 8.7 percent and in Pozemní stavitelství 8.6 percent, it is obvious to see what difficult and demanding tasks are facing these production economic units in the future. To meet the set goal, 48 percent of the year's plan will have to be reached in the first 6 months.

We must value highly the devotion and initiative demonstrated by the workers' efforts to reduce shortages in the 1979 plan fulfillment. From the year's beginning, additional working shifts were organized, socialist pledges made and special arrangements adopted.

We must point out, however, that we cannot be satisfied with the fulfillment efforts during the past period. The effectiveness of the special working shifts has been negligible. For instance: two shifts were organized in March which delivered construction work production worth Kcs 63 million. This was not even a half of the average normal daily production. What were the reasons? In addition to bad weather, it was bad preparation of the work and place of work as well as bad organization. But there is also another fact which made obstacle removing difficult and which must be also considered: it is the fact that fewer workers were employed than foreseen by the plan. From the year's beginning the construction organizations have been employing 1,419 fewer workers than calculated in the plan.

From the year's beginning, work productivity was another limiting factor since it never reached more than 91.8 percent. No economic unit has met the productivity requirement.

The consequences of the last year's lack of projection and territory preparation have affected also the apartment construction plan fulfillment. In the first quarter only 4,616 of the planned 5,154 apartments have been delivered. This figure is far below last year's level for the same period. The shortage is particularly visible in Prague, where only 245 of the planned 400 apartments have been delivered.

A comparatively better situation is in the North Bohemia kraj where 1,625 apartments have been delivered although only 1,325 were planned. The first quarter plan was thus fulfilled 122.7 percent.

The situation in the SSR Construction Ministry's organizations is likewise less than bright because their key construction projects have been completed only 94.7 percent, i.e., 19.4 percent of the year's plan. Out of 27 enterprises only 4 are meeting their quotas. The entire ministry group's shortage since the year's beginning came to Kcs 228.1 million. The biggest share of the shortage belongs to Pozemní stavitelstvo Bratislava: 182.2 million, with the shortage in this enterprise owing another Kcs 36 million in March.

The situation was not better in the obligated construction either. The first-quarter plan was fulfilled at 94.4 percent, which is 18.4 percent of the year's quota.

In the SSR, the apartment construction situation was more complicated than in the Czech provinces. In the first quarter, the plan was fulfilled only 42.1 percent. Of the planned units, 1,884 have not been completed and Pozemne stavby Bratislava is to be fully blamed for this unfavorable situation. One of the main reasons for this sad state of affairs was the fact that at the end of 1978 only very few constructions were advanced far enough to be completed in the first quarter.

The situation is most serious in the capital city of Bratislava where the plan called for first-quarter delivery of 352 new apartments. The result: none delivered. The reason? On the one hand, because no construction was in a sufficiently advanced stage to be completed and, on the other hand, because the work force was tied up in removing officially discovered defects in construction delivered last year.

The first-quarter production evaluation of principal construction also offers no grounds for satisfaction. In the Czech provinces 20.9 percent of the plan remained unfulfilled and registered a shortage of Kcs 344 million, which represents 6 work days' production. In Slovakia, the plan was fulfilled 90.5 percent, i.e., 20.6 percent of the year's quota.

Since the year's beginning only three enterprises have been meeting the planned quotas: Cementarna Horne Srnie, Azbestocementove zavody Nitra and Montostroj Bratislava. On the 49 Czech enterprises, 41 have not fulfilled their plans. Very far below the plan are the organizations of the ceramics industry as well as those in the production of cement, pre-cast and masonry materials.

The above-mentioned figures show that meeting the planned quotas has not been satisfactory at all. Bad weather was no doubt a serious handicap but one cannot keep blaming such occurrences forever. Recent 1978 analyses of economic results reveal continuous existence of many subjective reasons and drawbacks, and not only in construction organizations which are the principal suppliers in the investment-development field. The situation should give food for thought to all those who participate in investment development and whose decisions influence its success or failure.

It is evident, once again, that careful investment preparation is one of the decisive result-influencing factors. In this way we must view not only this year's tasks, but also the tasks for 1980 and the forthcoming Seventh Five-Year Plan. As Construction Workers Day celebrations approach, we expect that the workers' activity and initiative shall focus on helping to fulfill this as well as next year's tasks and thus also the tasks of the whole Sixth Five-Year plan.

9454

CSO: 2400

SSR AGRICULTURAL MACHINERY LACKING SPARE PARTS

Bratislava PRAVDA in Slovak 28 Jun 79 pp 1, 2

[Article by Jana Janku: "Harvest Will Not Wait For Spare Parts"]

[Excerpts] There are less than 10 days left before the beginning of the grain harvest in South Slovak okreses. The May drought accelerated the ripening process in sandy soils in several agricultural enterprises, which have already started to harvest the winter barley.

The considerable investments by our society in the grain growing program in recent years are substantially contributing to the fact that the harvest is among most joyous parts of the farming year as the nationwide climax of the grain growing year.

However, reports from the individual krajs immediately before beginning of the grain harvest indicate that the cooperative farmers and state farm workers have considerably more reason to worry than in other years. The reason is not only the recent drought which reduced the grains, but primarily insufficient preparedness of machinery as a consequence of an almost inconceivable lack of spare parts.

A look at the comprehensive report on the state of repair of the harvesting equipment, which was yesterday discussed by the SSR Ministry of Agriculture and Food Commission for Repair Management and Ensuring of Spare Parts, forces us to conclude that our farmers do not remember a similar lack of preparedness for the harvest. Of the total of 4,704 combine harvesters in Slovakia, 1,700 were not repaired by the middle of June. Almost 50 percent of the 609 SK4's, some 340 Nivas, 220 Kolos', and 870 E-512 combine harvesters are waiting for spare parts. In spite of the fact that some progress has been achieved within recent days, it is still probable that some 300 combine harvesters will not take part at all in the harvest in the West Slovak Kraj fields. The most satisfactory situation is in the East Slovak Kraj; however, even there some 100 combine harvesters will be idle.

The socialist competition introduced by the SSR Ministry of Agriculture and Food, as well as regular checks carried out by the kraj and okres

agricultural administrations accelerated the post-seasonal equipment repair. Much of the machinery belonging to the harvesting system aggregate has been inspected and repaired; however, because of one or two missing spare parts, the machinery must stand idle.

The representatives of agriculture, machinery enterprises, and foreign trade met at the CSSR Ministry of Agriculture and Food in the first half of June. They stated that in spite of discussions with foreign partners there are, for instance, more than 80 types of spare parts for the E-512 combine-harvester of which not a single one is in stock. There are 50 so-called zero parts [parts not in inventory] for the Niva and 67 for the Kolos. However, the suppliers of machinery and spare parts in the GDR and the USSR justifiably point out that the farmers are demanding whole component packages for machines, for instance platforms, hydraulic systems, speed regulators, etc, in spite of the fact that they are often lacking only a spare part worth a few halers. Thus, the demands for spare parts averagely are being elevated up to the level of the cost of new machinery, whereas currently that [spare parts cost] is around 30 percent.

In these days immediately before harvest, Agrotechna is beginning to receive some of the spare parts which are in short supply. It will not satisfy all the demands. Thus, for instance, of the 15,000 flat belts lacking for combines, our partners from the German Democratic Republic supplied only 1,000.

Despite the fact that rains wet the fields in recent weeks, we cannot disregard the possibility of a drought in the very near future. Because of this fact, our energy experts are further permitting uninterrupted use of irrigation and a similar measure is being prepared for operating of the drying installations. In order to operate them continuously, Slovak farmers need more than 25,700 tons of light heating oil in excess of the quantity stipulated. According to promises of workers of the Benzinol enterprise the oil really should not be lacking. However, that does not mean that we can waste it. Since not only grain, but also fodder is to be dried, economizing is necessary.

The first months of this year brought also the problem of a lack of motor oil. However, the situation is improving and the Slovnaft workers promised that they will make up the deficit by 10 July.

CSO: 2400

CZECHOSLOVAKIA

POLES CONSTRUCTING LARGEST GRAIN ELEVATOR IN CSSR

Gdansk GLOS WYBRZERZA in Polish 1 Jun 79 p 4

[Article by Stanislaw Czajkowski: "Polish Construction"]

[Excerpt] Sixty kilometers south of Prague a small mining settlement of Milin is situated. The place and its region are known not only in Czechoslovakia for it is here that one of the greatest natural resources is being extracted, namely uranium. Huge excavation dumps are marking the mountainous landscape and as if complement it with a sequence of hillocks.

Here, in the vicinity of the small town of Milin, structures have recently grown completely different from mining structures. Indeed, for three years Poles have been building the largest grain elevator in Czechoslovakia.

They are Doing It Single-Handedly

The elevator is already practically built. The handing over of the entire construction has been foreseen for 23 June of this year and--as the builders assure us--it will be ready by that day.

The structure is huge. The elevator's total capacity is 66,000 tons, i.e., more or less equivalent to 22 loaded trains having 60 to 70 cars each. The silos reach 33 meters in height, while with the operative tower they reach 43.5 meters in height. If I say that there are 66 silos, it is quite easy, I suppose, to picture for oneself the size of the whole complex.

At the construction are the Olsztyn Industrial Construction Enterprise [OICE], Elektromontaz of Katowice, Premo of Wroclaw, Somasz of Torun and Gdansk Industrial Installations Enterprise [GIIE]. It is impossible to mention all the other smaller suppliers and cooperating with the general contractor of the elevator, who is Chemadex of Warsaw.

The Poles are building everything here that goes together with the construction, the elevator that is. Not to rely on my own observation, I asked the OICE manager Jerzy Kedzierski in Olsztyn to characterize the term "everything" in detail.

[Answer] We arrived at Milin at the beginning of 1976. Fields overgrown with weeds, clay and paths amidst shrubbery--that is what we found on the spot where in three years the grain elevator was to be erected. It is surely obvious that we started with building roads, a store for the equipment and a workshop.

[Question] Somewhere you had to sleep, to eat somewhere.

[Answer] Our cooperation with the Czechs was very good. Our friends helped us build a canteen and later everything was running its course. Work, a solid and fast work.

[Question] Let us go back to the beginning of our conversation. I understand that you are building "everything"...

[Answer] Yes. The stores, workshops, housing for the crew, administrative buildings. We are putting in the entire water-drainage network, building roads, parking places, installing the lighting of the area, etc. Everything that is visible here has been built by the Poles, with their own equipment and materials. The Czechs supplies us with cement, gravel, sand and lime.

[Question] There is a group of specialists from Gdansk on the construction. Perhaps you would say a word about them.

[Answer] The plumbers of the GIIE are executing work in the elevator (in the steering tower) and in the attendant buildings and even in residential buildings. They are proceeding very well and on no occasion have they failed to meet a deadline. I am not in the habit of buttering up people, but these deserve praise. They are disciplined, calm and good professionals. On the other hand, their work and that of other installation enterprises is tremendously important here since the construction and installation work constitutes 70 percent of the actual contract value.

Velvety Plasterwork

Manager Jerzy Kedzierski and the head of the Gdansk group of plumbers, Jan Slawek are taking me on a tour round the elevator. The interior is already so clean and elegant that this industrial colossus reminds us rather of an exquisite apartment. The plasterwork is ideally smooth to the touch, almost velvety. It smells of paint and cleanliness. Here, inside the elevator, everything has been installed. Only one move of a finger suffices to set the belt conveyor flight and other devices in motion. After all, there are not many days left until 23 June and the first grain crops from the regions of Plzen, Tabor, Budejovice and Prague must get to the elevator at Milin in August already. However, the seemingly remote deadline approaches irrevocably. The elevator handed over for use at the end of June must yet pass technical tests. Its installations must be run in and possible flaws should be removed. This requires a little time.

"There are no work flaws," Jan Slawek replies to my doubts, "here everthing must be as it should. What we build and install enjoys good reputation. We have already built the first elevator, a somewhat smaller and (50,000 tons), at Knezmost near the city of Mlada Boleslav. The Poles built the project there quickly and without a flaw with exemplary cooperation with the Czechs. Elevators are practically our next export specialization.

HUNGARY

EFFECTS OF MANPOWER MANAGEMENT EFFORTS STUDIED

Efficiency Wage Payments

Budapest SZAKSZERVEZETI SZEMLE in Hungarian No 3, 1979 pp 13-18

[Article by Dr Mrs Istvan Martos: "Experiences in the Application and Spread of Performance Requirements"]

[Text] Under the present conditions of our socialist development increasing emphasis is being given to organizing the efficient application of modern science and technology and to a high level organization of production, which provide the foundation for a further swift growth of our economic and social development. This goal is in harmony with the interests of our society as a whole and creates a strong economic base for improving the living conditions of our working people.

Our economic development needs an accelerating technical progress and requires that the level of organizational work keeps pace with development. Thus the modernization of the principles and methods of organization has become a task of social significance.

Developing enterprise operational and work organization is the task of state and economic organs and leaders. But to a large extent the success of their measures depends on the extent to which the development of organization is made the cause of the broadest worker strata, the cause of leaders and subordinates, and is made part of their daily work. Modern, high level and efficient management of fixed assets, machines, materials, manpower and work time is the fundamental task of enterprise operational and work organization. This is a social and enterprise interest and it is an immediate worker interest; it creates the base for cultured, healthy and safe work, aids in improving work discipline and is a basic factor in giving impetus to the socialist labor competition.

The trade unions have supported and still support with all their strength those measures aimed at realizing the production and management goals.

They are trying to see to it that aiding organizational activity becomes an organic part of trade union work and the cause of enterprise leaders and

subordinates. They are offering worth while aid to the branch and regional economic leading organs to develop and implement control of enterprise operational and work organization, and to the realization of this in movement work. This means broad scale political education, enlightenment and organizing work. At the same time it aids the development of a political atmosphere and attitude in the given enterprise which favorably influences the development of organizational work. It encourages the economic leadership to deal in a profound way with a survey of and the guaranteeing of conditions for properly paced work and utilization of production equipment. A purposeful development of work order, reducing lost time and improving work discipline, represents aid in that as a result manpower is freed to ease the personnel problems in the enterprise or in other important areas of the people's economy. In the course of manpower regrouping the workers affected are helped in that they are made to fit in to the new working situations as soon as possible and in a planned way. The trade unions have the essential task of bringing in and mobilizing the workers in time, by means of an efficient realization of factory democracy, for the development of operational and work organization ideas and planned measures, for a consistent and complete execution of the tasks and for supervision thereof.

State and trade union organs have dealt much with these questions in recent years. But the really worth while progress is not in proportion to the efforts despite the fact that a number of Council of Ministers resolutions and ministerial decrees have dealt with the questions belonging in the sphere of work and operational organization and that, as a result, enterprise measurements plans have been prepared. At the same time the National Council of Trade Unions and the branch and regional trade union elected bodies have defined their tasks also. For example, the Budapest Council of Trade Unions also defined its tasks in the interest of execution of the pertinent resolutions.

We reviewed the development of the execution of resolutions connected with work and operational organization at the enterprises and factories of the capital on a number of occasions; we reviewed how work time was being used, the reasons for lost time and enterprise experiences connected with the development of work norms and other performance requirements. A radical change in the attitude which has developed in this area, developing practice in the proper direction and with the proper content, is an important condition for a successful solution of problems connected with manpower management, stockpile management and utilization of fixed assets, especially modern machines and equipment, is an important condition for the desired development of leadership and organization and for acceleration of our economic development. In addition, an improvement of work discipline, making more general the realization of the principle of distribution according to work and, in the final analysis, a further strengthening of socialist work morality are absolutely necessary for the broad scale and purposeful application of various performance requirements.

These problems appear in Budapest with special emphasis. Personnel in capital factories have decreased by 51,000 within 3 years. But it is well

known that there are manpower reserves not outside the fences of factories and institutions but within them. According to experiences gathered in the course of our investigations, nearly 18-20 percent of the work time is lost because of deficiencies in the utilization of manpower. This does not include the number of fractional day absences or the live work that could be freed by mechanization of work processes. Nor does it include that percentage of workers tied down by the manufacture of uneconomical products.

Bringing to the surface and making use of these experiences by means of rational manpower management is one of our most urgent tasks. A large role can be played here by independent activity and local initiative but also, obviously, by higher state organs.

In applying and spreading performance requirements and in summing up our findings we started from the 1974 resolution of the Council of Ministers. This resolution makes central and branch chief authorities responsible for creating the necessary external conditions and for guiding and controlling enterprise practice and it obliges the enterprises to develop in a planned way practices connected with work norms and other performance requirements.

Following the resolution of the Council of Ministers, the supervisory organs took various measures and prepared a methodological guide. In the first half of the Fifth Five-Year Plan period they reviewed on a number of occasions the execution of the resolutions and their realization in enterprise measures. One could not count on substantial progress in such a short time but there are possibilities, there are internal reserves for the development of some types of requirements. All this has encouraged the enterprises to prescribe, in the medium range plans, goals connected with performance requirement systems, to define, on the one hand, work norms and, on the other hand, a substantive development of other performance requirement systems not based on hours of work, increasing the ratio of workers in these systems.

There are nearly 90,000 workers in the 19 capital enterprises surveyed and nearly 70,000 of them work at physical jobs. Of these an average of 64.4 percent work in a performance requirement system.

Naturally there is a significant spread among enterprises in regard to the degree of reduction. In those factories where we found a ratio reduction there was a greater than average reduction in physical personnel and these came primarily from among workers in a performance requirement system. (For example, at the Vegetable Oil Enterprise and the Lang Machine Factory the number of physical workers decreased to the same degree, by 5.6 percent, and the number of employees in a performance requirement system decreased by 10 and 6.2 percent respectively.)

Some 47.8 percent of the physical workers work on the basis of work norms. The most common wage form connected with this is a straight piece-wage and other efficiency wages based on norms. The number of those working for

straight piece-wages is in general not increasing. The efficiency wage system in our homeland--a centrally controlled form--has a history of 30 years and where the conditions for its application existed it has been made use of for a long time. Further possibilities for spreading it are limited.

There are greater possibilities for spreading other efficiency wage systems based on work norms (for example, a piece-wage plus premium). This did show an increasing tendency in the period surveyed and there are increasing efforts to develop and apply wage systems based on a combined requirement system of qualitative and quantitative indexes.

Some 16.6 percent of the physical workers work in a wage system which is not based on work norms (time wage plus premium or premium and time wage). The premium generally depends on fulfillment of quality or material thrift requirements. A further spread of this would serve the more effective realization of our economic policy goals in producing, auxiliary and service work areas alike.

Work norms have a defining role in enterprise planning and organization too. At the enterprises surveyed 60 percent of the work norms are developed on the basis of technological instructions and technical calculations, 30 percent are worked out using statistical data and 10 percent are estimated norms. We found a higher ratio of technical norms in those enterprises where products are mass produced. The technical norms bring to the surface the deficiencies of organizational work and so this puts a brake on the spread of them. The ratio of statistical and estimated norms is greater in those enterprises where manufacture is on a unique basis or in small series.

In 1976 the average level of norm fulfillment was 106.5 percent and it was 108.2 percent in 1977. The lack of planning in norm maintenance activity, and thus the laxity of work norms, is shown--in a few enterprises--by a degree of fulfillment exceeding the average (for example, in 1976, it was 119.0 percent at the First of May Clothing Factory, 113.0 percent at the BUBIV [Budapest Furniture Industry Enterprise] and 126.6 percent at ORSZAK [expansion unknown]; in 1977, it was 116.8 percent at the First of May Clothing Factory, 129.2 percent at ORSZAK and 112.0 percent at the Driving Works and Painting Equipment Factory). In many cases the individual fulfillment percentages reached even higher levels. Fulfillment by 60 percent of those working in norms is over 105.0 percent. This proves that many of the norms contain lax time allotments.

We were able to analyze the development of average wages for those working with efficiency wages and time wages on the basis of data from only 11 enterprises. The other enterprises do not record or analyze these data. With the exception of one or two enterprises, the rate of growth of the average wages of those working in a performance requirement system exceeds that of those working for time wages. In general overtime per capita is higher for those working for time wages than it is for those being paid for

performance. It is a negative phenomenon that the number of overtime hours per capita is increasing year after year for physical workers. The magnitude of the increase reached 10 percent in 1977.

We made a separate investigation of activity and development connected with the development of performance requirements in white collar work areas. There have been virtually minimal initiatives undertaken to spread this. Many enterprises incorrectly regard the use of premiums and awards as a performance of a special task but they contain neither time nor quantitative requirements nor do they contain norm elements. We found efficiency wage payment meeting the requirements only at the Ikarus factory, where they introduced time norms for designers and group or small group work norms for machine data processing and wage accounting.

We also found that there are ideas and concrete goals pertaining to direct producing areas--and even to non-producing work areas. Despite this the backwardness is considerable, primarily in the low ratio of jobs for which norms have been set, in the one-sidedness of application and in the spread of what has been accomplished. Unfortunately the situation is no more favorable in regard to practice connected with other performance requirements (material norms, energy norms, etc.). Nor can the situation be accepted if there are real reasons, a number of unfavorable circumstances, which make it difficult to spread requirement systems--such as the constant decrease in the number of physical workers, limited material assets, technical development and material supply difficulties, frequent production program changes, a shortage of norm personnel, etc.

In our opinion the biggest problem is that in almost every area and at almost every level of technical and economic life there is no practice of well founded time management. Lacking this one cannot plan, organize or evaluate at a suitable level. On this basis we can ensure, more or less well, only one of the goals in the application of a performance requirement system (principles of wage payment, or the payment of wages proportional to performance or the quality of work). But the two constitute a uniform whole; separating them can bring only partial results and often not even that.

Contributing to this are those problems which continue to hinder progress and which reflect incorrect enterprise attitudes and practice:

--in the majority of enterprises the requirement systems used are aimed at a quantitative increase in production and they improve the qualitative factors of management (quality, thrift, efficiency, etc.) little or not at all;

--a significant number of the work norms used no longer have a technical foundation. Increasing the ratio of those that do is held back by the fact that their use requires strict internal organization, full use of work time and high level leadership work. The unsatisfactory nature of

these conditions shows quite sharply the lack of internal organization and the poor foundation for planning production and personnel. Modern analytic and evaluative work is also needed;

--in a number of places, and for years, the work norms have contained the same magnitude of lost time. This permits one to conclude that they are not dealing in a planned way or with sufficient regularity with a survey and analysis of lost time or the removal of deficiencies;

--the majority of enterprises define the norm maintenance tasks in the course of planning but they do not turn enough attention to carrying out these tasks.

In general the development and supplementation of the requirement systems do not follow the introduction or utilization of new products, techniques or technologies and organizational measures.

We were not able to get them to understand, in either enterprise economic or trade union areas, that a good requirements system increases enterprise efficiency and thus effectiveness. Wage payment differentiated proportional to performance and quality of work helps to save personnel.

In summing up our experiences we turned special attention to the extent to which the necessary personnel, objective and organizational conditions for the development and application of a performance requirement system existed in the enterprises. Unfortunately our findings were very unfavorable.

There is today no well developed, uniform position as to the correct solution regarding assignment of norm personnel in the enterprise organization. It has a negative effect that 70-80 percent of their work time--especially in the case of norm personnel working in labor affairs departments--is devoted to questions which do not correspond to their tasks. In general there are few of them, and during the 2 years their numbers decreased. We found enterprises where there were no norm officials or norm technologists and what is striking is that at two of these enterprises a significant number of the physical workers are working in a performance requirement system.

The situation is better with norm technologists. Their number has increased and their training exceeds even that of the norm officials. The increase in their number is interdependent with the development of technology and with the training of organizers, which has been going on for nearly 10 years, and of norm technologists, which has been going on for several years.

Despite the unfavorable findings only a few enterprises plan to increase the number of norm personnel because, lacking professional trained norm personnel, they cannot even fill vacated positions. The chief reason for this deficiency is that for 22 years there has been no centrally organized training of norm officials. At present, centrally, there is only middle

and higher level labor affairs training but this is not suitable for the preparation of norm officials. The large enterprises are trying to train norm personnel locally but so far this has not brought even minimal results.

The tasks are given from all this; the party and government resolutions which have appeared have formulated them. A number of supervisory organs and social organs and many experts have evaluated the situation and have designated the most important tasks in the same way: We must raise the level of norm work and increase the proportion of work areas measured by norms in direct production processes, among white collar employees and in other indirect areas. We should spread the application of work norms, normalized time data and other performance requirements to all those areas of technical and economic life where modern requirements make this desirable. Finally, we must create the personnel, objective and organizational conditions, carryout the complex programs and constantly supervise them.

We consider it essential that the development and application of performance requirement systems not be a goal in itself but rather a simple continuation of the party and government resolutions aimed at modernization of operational and work organization. Lasting results can be achieved only by a deliberate change in a correct direction of work methods and working conditions. These tasks require great efforts and consistent work but in their effect and significance they can mean the discovery of inestimable reserves in the organization of work, in improving work discipline, in the productivity of work and in providing a foundation for leadership.

The trade unions are ready to contribute to the worth while realization of these goals. Our experiences proved this during the investigation too. But at the same time it is necessary for the trade union organizations--at every level and in every area--to take more initiative in the development and spread of performance requirement systems. Greater aid must be given to this by increasing the understanding of trade union officials and by bringing such ideas and measurements plans before the bodies and democratic forums. Chief attention should be given to steward bodies and stewards and to the practical realization of their rights. It is also essential that we regularly supervise the execution of the pertinent party government and National Council of Trade Union resolutions, urging the carrying out of the tasks. The most important tasks of the given period should be designated in their own activity too. Only in this way can we realize this very significant goal which is one of the great reserves of our economic development.

Key to Manpower Savings

Bedapest MAGYAR HIRLAP in Hungarian 22 Jun 79 p 5

[Interview with Janos Tillmann, a department chief in the Capital People's Control Committee, by Ilona Peter: "Thrifty Manpower Management"]

[Text] What were the results in the capital of those measures with which the labor affairs authorities and the capital council wanted to control and influence a more socially useful movement of manpower and a thriftier and more rational enterprise management of live work? The Capital People's Control Committee sought an answer to this question at 33 Budapest enterprises, under both state and cooperative management. As a whole the survey covered 5 percent of those employed in the capital. Janos Tillmann, a department chief in the Capital People's Control Committee and the director of the survey, reported on the findings and lessons of it.

Deficient Analytical Work

[Answer] For many years the supply of manpower in the capital has been burdened with tensions. The problems are caused before all else by the drying up of manpower sources which, even at the time of the Fourth Five-Year Plan, posed with elemental force the necessity of deliberate, planned and thrifty manpower management. But it took a long time for these requirements to have an effect in attitudes and in practice. We cannot yet speak of a turnaround although one of the chief findings of the survey was that labor affairs activity in our enterprises is a good bit more lively and shows more initiative than earlier; they are turning greater attention to the real manpower management tasks.

[Question] In what does the change appear?

[Answer] Before all else in planning. All the enterprises prepared their own medium range manpower plan for the Fifth Five-Year Plan period. This made it possible to compare enterprise needs and possibilities. The spread of planning is a good thing in itself. But the comparisons were not successful everywhere. If we look at the quality of the plans the findings of people's control are not so favorable. There is much lack of reality, lack of proper foundation in the plans. And not by chance. In very few places was the preparation of personnel plans preceded by a basic analysis of external circumstances and internal possibilities. In many places the manpower needs were defined on the basis of past experience, starting from production and trade tasks. This shows that a way of thinking still survives which can imagine an expansion of production only together with an increase in personnel. In any case it is a fact that the majority of the enterprises were not able to fulfil their plans pertaining to physical workers in any branch of the people's economy. To put it plainly, they planned for higher numbers of personnel than were realistically possible. It is also a warning sign that hardly one quarter of the enterprises surveyed by us had personnel plans which took the professional composition into consideration. This shortcoming is especially serious in a period when the transformation of the product structure is being accompanied for the most part by a modification of the professional structure.

[Question] It appears that we have discovered a contradiction. In the beginning, despite these negative phenomena, we were talking about a quickening of enterprise labor affairs activity.

[Answer] There is no contradiction. Even with the weak points of planning the enterprises are trying to alleviate their personnel problems with an extraordinarily broad scale of measures. Everyplace we find labor affairs action programs which concretely propose absolute or relative manpower savings. A few of the large enterprises are striving for absolute manpower savings by means of significant investment, reconstruction and technical or organizational modernization. There are frequently measures directed at discovering where time is lost, at improving labor discipline and in general at a better utilization of work time and manpower. Even if slowly there is an increase in the ratio of those employed for efficiency wages and many ideas and plans have been developed to improve operational and work organization. All this is true even if it is "fashionable" today to criticize labor affairs activity which earlier was the "stepchild" of the enterprise; certainly they really neglected a development of the apparatus. The good initiatives and correct enterprise efforts now deserve greater encouragement and support.

[Question] In 1976 the branch ministries categorized the enterprises, putting them into three main groups. As is well known, those which could develop their activity by increasing personnel were put in category "A"; those in category "B" were to maintain their level of personnel; while category "C" meant a real decrease in personnel and the gradual liquidation of the activity of the enterprise. The capital council coordinated its system of work assignments with this categorization. When placing those applying for work this order of importance is taken into consideration. What changes did these measures bring in the manpower situation in the capital?

A Limit on Wage Increases

[Answer] They eased the tension but they did not bring a substantial change. The manpower situation of our capital is defined basically by the fact that the number of personnel employed in industry decreased further in the first half of the plan period. And the magnitude of the decrease exceeded what was planned. In the course of our control survey we found that as a whole the decrees, following one after another, turned the flow of manpower in a more favorable direction. As a result of these measures the unbridled labor migration decreased substantially. The stability of physical personnel improved. Already in the year following the measures the ratio of physical workers leaving their jobs was 14.6 percent lower than in 1976 (in the enterprises surveyed). The decree of the Ministry of Labor Affairs which restricted the increase in wages on taking a new job for those frequently changing jobs had an especially favorable effect. Workers everywhere approved of this measure for they had long since condemned the practice whereby the fact of taking a job

was sufficient, without any proving of oneself, to get a higher wage. During our survey, however, we found that some enterprises are cheating on this decree with various manipulations. When we summed up our findings we came to the conclusion that the "key" to really effective manpower management is in the hands of the enterprises, even from the point of view of how they make use of the possibilities given by central measures.

8984

CS0: 2500

STATE SECRETARY DISCUSSES PRICING, EFFICIENCY IN AGRICULTURE

Budapest MAGYAR MEZOGAZDASAG in Hungarian No 24 pp 4-5

[Article by Bela Csikos-Nagy, chairman of the National Material and Price Control Board (AAH): "Increased Efficiency Requirements in Agriculture"]

[Text] In the last decade vigorous growth took place quantitatively in agriculture. In the time period of 1969 to 1978 the value of gross production grew by an annual average of 3.4 percent. This is an above average result even in terms of international comparison.

However, the question comes up under what conditions these positive changes occurred. From this viewpoint, the picture is no longer so unambiguous. It appears that the role of agriculture's increasing material and technological supply is disproportionately large in the relatively rapid rate of quantitative growth, and that of the improving efficiency is smaller than desirable. Such a conclusion can be arrived at from comparative international analysis of costs and prices. (State secretary Bela Csikos-Nagy, chairman of the National Material and Price Control Board began his speech with these thoughts on 23 May at the scientific conference on agricultural economics and operational organization held at the Hungarian Academy of Sciences [MTA]. In the following we are publishing parts of his speech.)

General Price Reorganization

We are preparing for a general price reorganization. All general price reorganizations--due to the nature of the thing--are also situation evaluations. Critical analysis of the production conditions also covers the international price and cost interrelationships in our national economy which is so sensitive to foreign trade. The circumstance that our increasing dependence on the world market practically forces the introduction of competitive pricing additionally underlines the significance from this viewpoint of the price reorganization now in progress.

We consider pricing to be competition in its makeup when the price to be paid on the world market determines the acquisition prices of natural energy sources, and the export price which can be obtained on the world market

[determines] the price levels of the products produced. With certain transitional concessions we will apply this [method of] development of prices in numerous industry branches. These comprise 70 percent of the total industrial production without the food industry. But we cannot introduce it in agriculture.

Comparing the export prices and the domestic prices it was possible to establish that the present wholesale purchase price level of agricultural products is essentially the same as the export price level. But two circumstances must be taken into consideration when this judgment is made. One is that the agreement exists in the product structure of all wholesale purchases and not of the export; it has a significant role in the overall agreement that the profitably sold wheat and corn have much larger ratios in the wholesale purchasing than in export. The other circumstance to be kept in mind is: to a significant extent the agreement is based on the fact that chemical fertilizers, plant protecting chemicals, machinery, etc. are sold to agriculture at deficit prices. The calculations show that wholesale purchase price levels should have to be increased by nearly 30 percent in order for prices to cover all expenditures. Thus the price gap is nearly 30 percent between the expenditures and the price levels of export.

The studies have also discovered that the wholesale purchase price levels agree with the export price levels while there are radical differences in the relative prices. When the export prices are used, 30 percent higher prices should be paid to the producers in grain production, but vegetable and fruit prices should be decreased by 15 percent, the prices of live animals and animal products by 10 percent. All these circumstances even by themselves already indicate those problems which would occur in food production if competitive pricing were to be introduced.

Competitive Price Concept

Leaving the principles of competitive pricing out of consideration we have arrived at the conclusion that we propose to increase the wholesale purchase price level by 10 percent; within this the general price level in raising animals should be increased more, by 13 percent, and less for cultivated plants, by 6 percent. This can also be worded in such a way that while in industry we are getting closer to the concept of competitive prices, in food production we are getting further away from it.

Two considerations play roles in this. First of all, that we do not want to increase without limitations, the budgetary subsidies of industrial products sold to agriculture as production equipment, including imported products, but on the contrary we wish to decrease them. Primarily this is why we propose to increase wholesale purchase price levels. Secondly, we wish to decrease that gap in profitability which now exists to the disadvantage of animal raising. In 1977 the agricultural profit in proportion to price incomes amounted to 12 percent. This came about by 18 percent being realized in the growing of plants and 6 percent in raising animals--at least as the

cost calculation data of large agricultural operations show it in this country. This is why it appeared to be justified to increase wholesale purchase prices in animal raising by a larger extent.

It is generally known that the world market price relationships of agricultural products conform decisively to the production conditions developed in overseas exporting countries. These are the conditions of extensive economic operations and as such, they differ radically from those intensive conditions under which agriculture can advance in Europe.

This explains why after World War II when the Common Market was created in Western Europe, the foundations for this were laid by introducing a common agricultural policy. This agricultural policy made it possible to develop and maintain price conditions in the Western European countries which are characteristic for the European production conditions. The so-called European regional world market price was created, in which today 9 countries participate. These prices--with the exception of one or two product groups--are 30 to 70 percent higher than the world market prices.

Naturally an outside country, such as Hungary cannot obtain validity for these prices in its export to the Common Market. The difference between the world market price and the Western European regional price is shepherded into the treasuries by various price equalization methods, and is then in turn used within the Common Market in harmony with the goals of the common agricultural policy.

Agricultural Products for Energy

The level of agricultural expenditures in the European socialist countries also exceeds the level of the world market prices. But European socialist economic integration, CEMA thus far has not developed the institutional system of common agricultural policy. At this time the situation within CEMA is that each country supports its own agriculture from budgetary means, independently of prices, but applies the principle of the general world market price for import within CEMA.

Introduction of the autonomous agricultural price policy would be practical within CEMA also. Our position is as follows: agricultural products are beginning to play an increasing role in counterbalancing the energy and raw material imports. At the same time the rapidly rising tendency of raw material and particularly of energy prices increases expenditures in agriculture under the circumstances of modern agricultural technology. Therefore it appears to be justified that CEMA should recognize agricultural products as items of similar hardness [i.e., significance] to the raw material and should apply the principle of parity prices. This would at the same time also open the gate for developing competitive prices.

If we could do this already today, then at the same time it would also become clear how significant those tasks are which we must solve in food production--

just as we must solve them in the industry--in the interest of improving efficiency. When examining this question it is practical to begin with foreign trade. We must take these measures because due to developing intensive agriculture the demand for import increases, while food production has an important role in producing the country's foreign currency needs. [sic] Twenty percent of the value produced in food production, and 70 percent of the production increment are exports. Obviously exports have to expand much more than imports. Besides other things, this depends on at what rate the chemical fertilizer and plant protecting chemical utilization will improve in plant growing, feed conversion in raising animals--and so on. A portion of our economic problems is related to this very thing. Expressing it in another way: even to this day we have been unable to reestablish the equilibrium of the foreign trade balance disturbed due to the 1973 oil price explosion on the world market, among other things because the agriculture was unable to completely fulfill the requirements placed on it.

There is such an opinion that the true export-import balance of food production is better demonstrated by comparing exports to imports necessary for the production operations in food production and only with the agricultural product import which supplements its own production (excluding colonial produce). [sic] The Economic Research Institute of KSH [Central Statistical Office] has done evaluations on the development of this type of agricultural import. With such an approach the dynamics of the surplus balance are more favorable, but the 1978 annual balance is hardly more, about 14 billion forints.

Efficiency and Volume

I think I am not committing a large mistake if I assume that at the latest by around the mid-1980s we must absolutely achieve the reestablishment of the disturbed balance of our foreign trade, and this assumes that the export surplus of our food production at that time will have to reach 58 to 63 billion forints annually, calculated at 1976 export prices, and our nonruble accounted exports [will have to reach] 40 to 45 billion forints.

We can judge export activity of the food economy by its efficiency and volume. The conclusion practically follows from comparing the relative world market prices and domestic relative expenditures that instead of live animals we should rather export grain. But if we were to significantly decrease the animal stock, the foreign currency volume of exports would greatly decrease. It is impossible to achieve a 58 to 63 billion forint export surplus on the basis of growing plants. This is possible only with such an export merchandise structure where besides grain, vegetables and fruit the role of live animals also has an appropriate weight, and also if that amount of exported merchandise gradually increases at a higher level of processing, as product of the food industry.

Moreover, in our situation it is not correct to contrast export efficiency and the increase of produced foreign currency volume with each other. Only that will move us ahead if the results in these two areas do not appear at the expense of each other, but together. In my opinion I will not be committing a big mistake if I begin with the following.

Grain export cannot be expanded at the expense of live animals and animal products simply because the world market price of grain products is more favorable for us. Increasing the volume of foreign currency produced primarily by plant cultivation and animal husbandry must determine the ratio which fundamentally determines the production structure of the food economy.

In contrast with this, the two large branches, primarily the export profitability must determine our policy structure.

We must be able to improve efficiency by diversifying the export merchandise structure in this manner. This is exactly where the multifaceted nature and complexity of the problem lies; and if you like, its beauty, because it holds a broad spectrum of tasks for everyone.

It can be mentioned in connection with relative world market prices that they have developed as a function of supply and demand. Besides other things, world market prices express that many countries maintain larger animal stocks than feed grown and thus this produces better than average conditions for fodder cultivation. With this approach it can even be argued that an approximately 40 percent real price gap in efficiency exists in the international market of plant cultivation and animal husbandry.

Great Opportunity: Animal Raising

Regardless of what our opinions are in this question, it appears almost certain that the main avenue for improving efficiency in the Hungarian agriculture presents itself in animal raising. For example, it seems important that the rational fodder marketing should receive a greater role than thus far in developing animal husbandry guidelines and particularly in price and finance policies subsidizing cattle and hog raising.

The Sixth Five-Year Plan's economic policy is now in the process of being worked out. Studying the various plans, it appears that those economists who are familiar with planning also consider such development to be possible whereby about the mid-1980s an export surplus of 58 to 63 billion forints would result. These concepts are based on specific calculations. Yet we cannot be satisfied by saying that agreement will be easy in the matter of planned development of the food economy.

The conceptual alternatives worked out by our agricultural specialists are based on two main hypotheses. According to one of these, during the time period of the Sixth Five-Year Plan, the alternative most likely to satisfy

our export expectations we will have invested nearly 60 percent more into the food economy than during the time period of the Fifth Five-Year Plan. According to the other one, the efficiency of investments will greatly deteriorate comparing the time periods of the two five-year plans, in spite of the nearly 60 percent rise in investments the average annual growth of agricultural production will decrease from 3.4 percent to 2.8 percent. Even in the food industry this can end up being only between 3.5 and 5 percent as compared to the 4.6 percent expected for the time period of the Fifth Five-Year Plan.

Such requirements made on the food economy could not be fulfilled even with a large scale regrouping of capital. Although over the medium-range we must decrease the rate of national economic growth to 3 to 4 percent, while the volume of investments cannot be increased at all, or just barely. We will have to be able to achieve the increased export requirement with a more modest investment volume, based on the resources available to the national economy.

8584

CS0: 2500

DEVELOPMENT OF WAGE REGULATION DISCUSSED

Budapest FIGYELO in Hungarian No 24, 13 Jun 79 p 5

[Article by Laszlo Pongracz: "The Development of Wage and Income Regulation"]

[Text] Wage and income regulation is perhaps the most often discussed element of the means structure of economic direction. The criticisms, of course, are not without foundation because it is indisputable that the present wage and income regulation does not quite serve the tasks deriving from the changed situation of the national economy. Before making the mistake of calling wage and income regulation to also account for shortcomings that were caused by other factors, it is, however, appropriate to clarify the function and role of wage and income regulation and the place it occupies in economic direction and economic regulation.

Wage and income regulation plays an important role in the distribution process, financial incentive management and the realization of living standard policy objectives. It can perform all these functions, however, only together with the other elements of economic regulation, built into the system of economic guidelines and interaction with other means of direction contributing to the realization of economic policy objectives.

Wage regulation plays a role in laying down the principal trend for the financial interest of the enterprises, in determining the direction and intensity of financial incentive, in setting up the limits of the enterprise wage policy and wage management activities, and in keeping purchasing power within planned limits. In the performance of all of these tasks, it makes a contribution, helps or does not help (in some cases even impedes) their fulfillment, but in no way does it fulfill these functions "alone." (In determining the direction of financial interest and the efficiency of financial incentive, the price mechanism and income regulation play a much greater role than wage regulation).

Why Is It Inadequate?

An indisputable requirement vis-a-vis wage and income regulation is to stimulate increased economic efficiency and rational manpower management and to

ensure that the wages and incomes created in the form of purchasing power remain within limits corresponding to the plan.

The most important findings concerning wage regulation introduced in 1976 and modified several times since then are as follows:

--It does not provide enough incentive toward rational management of production resources, in order to increase labor efficiency among them human labor.

--The basic principle prevails in the regulation, and thus the possibilities for wage increase always depend on the development achieved in comparison with the preceding year, which impedes the exploitation and utilization of internal reserves.

--It only allows enterprises to increase wages within narrow limits.

Most of the adverse and inadequate effects originate from the fact that the regulation as a whole, and also the wage regulation, have not raised sufficiently explicit requirements vis-a-vis the enterprises, and made it relatively easy to achieve the wage increase that was judged necessary. This "softness" of the regulation is connected with the relatively loose determination (which stemmed from planning errors) of the measurements (coefficients, tax rates, and so on) and the extensive direct and indirect practice followed. As a result, the enterprises were not forced to explore their reserves and to set into motion a more stimulating internal financial interest system. Highly efficient labor was not accompanied by adequate material advantages and uneconomical activity did not result in any notable disadvantages.

Because of all this, stricter modifications had to be carried out in 1978 and also in 1979, despite the fact that in essence the regulation kept the purchasing power created in the form of wages within limits corresponding to the plan.

Wages and Requirements

In connection with the further development of the economic regulation system, wage and income regulation must also be modified so that it better serves economic policy objectives. Further development, in shaping the basic principles of modernization, must proceed, in addition to the experiences of the past, from the tasks of the years ahead of us. The improvement of the economic balance is connected to a large extent with the efficiency of labor and the rational transformation of the product structure. The better utilization of the working time base, a redistribution of part of the labor force, and in the final analysis an increase of employment efficiency are indispensable for reestablishing the employment balance.

The main principles of further development are as follows:

The increase of wages must be made dependent on the fulfillment of the requirements. One must make sure that the enterprise that works more efficiently and improves its results will be able to raise wages to a greater extent than the one which operates with a low efficiency or stagnates. It is not enough to merely raise the requirement that the enterprise "work out" the collateral of some wage increase the size of which was centrally determined without a reduction in profit. Taking into consideration the possibilities (reserves) and the demands of the national economy, one must insist upon a considerably more dynamic improvement of results as far as wage increases are concerned. It is not enough to link the revenue participation fund with the performance of the enterprise, and the same must be done with wages because through wages stronger and more direct incentive can be achieved toward boosting individual and enterprise performances.

The manpower situation requires wage regulation to encourage more forceful personnel economy. The bulk of wages, therefore, must be placed in the center of the regulation as much as possible. This form of regulation does not encourage replacement of a spontaneous reduction in force at all costs, in fact it is even in the interest of the collective to reduce personnel because the wages thus freed can be used to raise the wages of the remaining [workers].

It is expedient to continue making the increase of the majority of wages dependent on the "added value" type indicator, but the content of the indicator must be reexamined because it is possible that the omission of certain items could make it possible to create a performance indicator better suited to the objective.

The regulation of the majority of wages must also be combined in the future with wage level regulation. It is not expedient to allow the unlimited use of wage savings resulting from personnel reduction to raise the wage level because the enterprises which earlier followed a loose labor force policy would gain advantages even without any notable increase in efficiency compared to those enterprises pursuing a long term rational labor force policy. One must choose such a solution which allows higher limits for untaxed wage level increase for those enterprises which are also entitled to higher wage increases based on the increase of the added value indicator. This would mean that the limit above which further wage increases result from the payment effected from the revenue sharing fund will not come out uniformly in every enterprise.

The Conditions for Preference

As a result of production price adjustments, significant redistribution will take place in the enterprises' sequence according to results and efficiency. The proportion of the enterprises unable to improve their results or unable to improve them adequately, or in which the added value indicator is decreased, and which cannot temporarily cover themselves through personnel reductions to raise wage levels may be significant. Experience shows that such enterprises en masse claim wage preferences. In order to avoid this,

one must make it possible for all economic units which, are unable to raise wage levels because of basic fulfillment of the general requirements, to be able to raise their wage levels by a centrally determined extent, or to supplement wage level increases from their own resources. This limit must definitely be lower than average wage level increases, and the extent should be determined in the yearly plans. This method will ensure that in the future, wage preferences will not aim to help the enterprises which lag behind but will serve those enterprises which otherwise manage themselves efficiently to surmount temporary difficulties and stimulate them toward the achievement of better results.

Also in the future the assertion of the basic principle cannot be completely eliminated from wage regulation. The joint system of wage and income regulation must, however, assert more forcefully than until now the so-called "level interest." This goal can be achieved in the following manner:

The means proportionate or price income proportionate profit of the enterprise working with a greater efficiency is higher than the average one. As a result, it can set up a bigger revenue sharing fund with the price of the payments effected from the revenue sharing fund. It can raise wages even if its performance indicator rises only minimally, or remains stagnant. (The low efficiency enterprise, because of its lower revenue sharing fund, can attain a wage increase only if it improves the efficiency of its activities or reduces its personnel). The advantage of the enterprises working efficiently can also be reinforced by using a more favorable (lower) tax ratio than average when establishing the revenue sharing fund as a function of profitability.

Further examination is needed to determine whether it is possible, and under what conditions to pay in advance a certain proportion of the wage development possibilities of the following years when more moderate results are achieved temporarily in efficiently working enterprises. Inasmuch as we can use this method, adequate assurances must be created so that only those enterprises may avail themselves of an advance payment which during the following year are able to fulfill the obligation connected with implemented wage increases.

A solution serving wage level increases is one that debits the revenue sharing fund to make possible payments effected during the year under more favorable conditions than the wage increase which becomes the base and brings with it a payment obligation from the revenue sharing fund. From the viewpoint of wage regulation these are not counted into the base.

The principle of normativity must be strengthened both in wage regulation and in the other elements of regulation. The principle must be enforced that only an enterprise with a profit can have a revenue sharing fund.

The basic principles proposed concerning the further development of wage regulation plan relatively few changes compared to the present wage body

regulation. The favorable effect of the methods proposed depend to a large extent on the tightness of the requirements expressed by the measures to be determined later, and on how consistently we enforce the principle of normativity and suppress individual exceptions.

Naturally, it will be further necessary to use other concrete methods as well in certain branches and specialized sectors of the national economy--primarily in those areas where profit stimulus cannot be employed. In a narrow area, a central wage level or wage body regulation can also be used, and similar to present practice regulation combined with central regulation will also be needed in some areas of activities.

Enterprise wage regulation, however, is only one element of wage regulation. Increased labor efficiency demands that the enterprises develop their internal systems of concern and assert in their wage utilization practice as well as the principle according to which not only the increase of wages, but every forint of wages must be tied to requirements. The enterprises must increasingly aim at wage and income differentiation according to performances in their wage policies and must eliminate all barriers preventing the realization of these efforts.

2153

CSO: 2500

DOMESTIC TRADE UNDERSECRETARY MEETS WITH JOURNALISTS

Warsaw GAZETA HANDLOWA No 25, 24 Jun 79 p 2

[Report on interview with Tadeusz Bielski, director general of Central State Domestic Trade Office, in Bialystok]

[Text] Last week, a group of journalists concerned with the problem of domestic trade met in Bialystok with the Undersecretary of State in the Ministry of Domestic Trade and Services, the Director General of the Central State Domestic Trade Office (CPHW), Tadeusz Bielski. The Bialystok meeting was devoted to the problems of applying active sales to State trade.

The participants at the meeting were informed on the forms of sales activation currently being used by the CPHW. Among the forms of bringing the commodity closer to the client, the greatest success was gained by fairs and bazaars--large trade events organized in the open corresponding to the traditional fairs and bazaars of long ago. Last year, 244 such events were organized.

The development of active forms of sales undoubtedly had an impact on the implementation of the planned tasks and on making up the arrears in the first quarter period. Assessing the activity of State trade in the past five-month period, the Director General of CPHW, Tadeusz Bielski, stated that the arrears have been made up completely and a growth rate in sales of 104.7 percent was reached. The month of May particularly was characterized by a large growth rate in the sales of articles from the complex of clothing. It amounted to 110.7 percent and reached the highest ceiling compared to other months.

Against the background of the general CPHW program, the experiences of the Bialystok Voivodship Domestic Trade Enterprise in engaging in the forms of active sales was presented by the director of the enterprise, Jozef Grajewski.

The participants at the meeting visited, among others, the locations of the Bialystok Tourism Bazaar, which is being held in June, and also WPHW social facilities.

CSO: 2600

ELECTRIC POWER SITUATION DISCUSSED

Warsaw SLOWO POK TECHNIKE in Polish 18 Jun 79 p 1

[Article]

[Text] Although it is the threshold of summer, the power engineers have had no rest, as is testified to by daily communiques of the State Power Distribution Agency ordering the saving of current. At electric power plants and electric and heat generating plants the repair campaign remains intensive and at the same time work on the installation of new turbine sets is being started. In the current year it is planned to put in use equipment with a total power of 1640 MW. However, this will not liquidate but will only reduce the existing shortage.

The energy shortage is not occurring only in our country. The rationalization of the power economy in the modern world--the main theme of the International Congress of Power Engineers that is now deliberating in the capital --is being debated by the representatives not only of the power-poor but also of the power-rich countries, and this is becoming a characteristic sign of our times.

The reasons for the situation existing in Poland are complex. Undoubtedly one of them was the 1974 fuel crisis which, by changing the proportions of the prices of crude oil, coal and gas on the world markets, also affected our country interrelatedly. However, the main reason is the increasing divergence between the needs of dynamically developing industry (especially in the years 1971-1975) and the power-generating capabilities of the power industry.

The excessive energy consumption of our economy has long been known. To form a unit of national income we consume 1.5-3 times as much energy as most states of Europe. According to the estimates of experts, excessive power consumption in Polish industry reaches as much as 30 percent. It is obvious, therefore, that the liquidation of the electric power shortage must start first of all with reduction of industrial power consumption which, let us recall, takes over 70 percent of the energy produced in the country.

Fairly often overlooked in discussions of this matter is the key fact that the most important savings are created, not during the operation of machines and equipment, but in the phase of their designing.

It would therefore be in the interest of the national economy, in the interest of society, to create an efficient economical system that would oblige designers and investors to use energy-saving solutions dictated by comprehensive cost-effectiveness analysis. Looking at new investment exclusively from the angle of quantity and quality of the articles produced is not enough today: treatment of the production and energy aspects on an equal footing is required.

The proposed changes will not bring immediate effects, but without them we will not succeed in getting out of the energy difficulty. Besides, no one among the specialists doubts the permanence of the worldwide tendency toward higher energy costs and increase of difficulty in obtaining it.

Another, likewise unavoidable condition for liquidation of the electric power shortage is permanent and more intensive investment in the power industry itself. It is necessary, besides water resources, transport and communications, for those areas the development of which must outstrip all the other sectors of the economy, if its comprehensive development is to occur without great disturbances.

Our energy system has practically no reserves. Turbine sets work in peak periods under maximum load without necessary interruptions, which causes excessive wear and tear of equipment, and breakdowns of generators and boilers will increase if the already existing power shortage is intensified, with different consequences. Therefore the creation of a 20-percent power reserve in the national system, proposed for years by power engineers, has also become an urgent necessity.

Second electrification of rural areas, started on a large scale 2 years ago, must be accelerated, after all. It is a question of a basic matter from the point of view of the food industry, with the building of a low-voltage transmission system capable of powering milkers, cookers, threshers, etc, machines and equipment. The current mechanization of agriculture has had the result that the old network, planned a quarter of a century ago mainly for lighting purposes, already is unable to bear the increased load, and especially to power three-phase machines.

2174
C30: 2600

POLAND

TRANSPORT PROBLEMS, WINTER DAMAGE PERSIST

Coal Transport

Warsaw TRANSPORT I DROGI in Polish No 4, 24 Jan pp 1,2

[Article by R. Kowalski: "Minister Mieczyslaw Zajfryd's Meeting with Journalists"; names within slantlines printed in boldface]

[Text] A meeting took place at the Capital premises of the Association of Polish Journalists between press, radio and agency journalists from mining, transport, communications and economics clubs and directors of the departments of transportation, mining and Coal Sales Centers. Present were comrades from the Central Committee of the Polish United Workers Party: Szczepan Kobielarz from the Heavy Industry, Building and Transport Section and Piotr Krol from the Radio and Television Press Section. Our area was represented by the minister of transportation, Mieczyslaw Zajfryd, deputy to the chief director of the Silesian District Directorate of State Railroads, Bogdan Matalyga.

Observations and remarks were exchanged not only on the subject of current winter disturbances, particularly in energy, fuel and transportation but also on past ones, as well as on the planned management of capital expenditures and transport. To be sure, the working theme of the meeting was "coal transport," but many related subjects on the background of this basic problem were touched upon.

The participants' exceptional concern about transport must be emphasized. The journalists did not complain about the railway but good-naturedly asked: When will public transport finally be among the preferential departments of the national economy--similarly to the way it is in the USSR?

A conglomeration of interacting elements are brought together to make the railway freight workable and efficient: good tracks and road-beds, efficient traction and "healthy" cars, properly equipped distribution stations and loading bases, strong technical and repair facilities adapted to the requirements of reloading installations, good personnel and proper traffic organization. If all this were on the proper level and if the railway

could carry out the majority of its assignments during the non-winter seasons, there would be no problems and "surprises" due to poor weather conditions. For we know in what kind of climate we live.

After 1970 an enormous development occurred in the raw materials and iron and steel industry and in other trades, increasing the strain on mass transport with their requirements and products. Railway capital investments do not keep up with these needs, do not always accompany new, large scale plants; at any rate, they lag behind the already operating industrial giants. That is why in threatening seasonal situations we save ourselves with auto transport, which is not economically advantageous (expensive fuel) but is sometimes indispensable.

This is what happens for example with coal, of which Poland is the largest producer in Europe and fourth in the world. In addition to that, we are a large transit railway; our freight transport constitutes 20 to 22 percent of the general transport, not small compared to other nations.

During the whole country's winter energy problems, despite freezing and breaking switches, at the expense of passenger and certain goods traffic the railwaymen carried out a great effort, partially liquidating coal reserves from Silesian dumps. It is enough to say that in difficult winter conditions the coal reserves lying in Silesian dumping grounds were reduced from 4.3 million tons in December of last year to 3 million tons in the first ten days of January. Such spurts nevertheless cannot replace rational, rhythmic transport operation since the costs are too great.

Since the beginning of the current year, the railway has not transported the 5 million tons of freight planned for this period. It did not transport it perhaps because several plants closed or slowed down production. For example, certain gravel pits and other plants which produce products using mass transport were not functioning. That is to say that transport deficits occur not only--as may be thought by simplifying--because of lack of cars. If plants, for example, heat and power generating plants, were to store coal reserves properly in high piles instead of thin layers, there wouldn't be problems such as those which occurred during the past freezes. Coal freezes to a depth of 40 cm and it is possible to draw from its lower layers. Besides that, coal reserves in heat and power plants should suffice for 14 days. In fact, between December and January there was coal for only 8 days, as it was being more rapidly burned due to freezes. And even these reserves froze...

There are coal-unloading bases, but without proper equipment for unloading through trains onto collection trains or trucks which carry the coal further. Capital expenditures must be made for these bases. An increase in the number of bulk coal unloading stations is also planned. Other actions are being undertaken on the basis of an analysis being presently carried out by interested departments after a period of difficult conditions which revealed inadequacies in transport and in the economy as a whole.

The railway does much, within the acknowledged limits of its ability, to improve the growing freight transport. During the current year an additional traffic artery from Silesia toward northern Poland (Zabrze Mikulczyce--Fosowskie--Kluczbork) and other cross-strengthening of important linked lines will be completed. Likewise, a second track on the Central Railway Trunkline from Laz to Grodzisk Mazowiecki will permit 20 freight trains to be put into service on this fast route. During this year construction will be completed on the Hutniczo-Siarkowa Line which will greatly relieve the southern region standard-gauge lines which presently transport raw materials to the Katowice Ironworks.

To the journalists' questions of why, taking into account our climatic conditions, more defrosters for bulk freight wagons are not being built, the minister replied that as far as he remembers, in the past 25 years on the route from Poznan to Szczecin, for example, snow plows were used only twice. Construction of defrosters is very expensive, therefore investing in this type of equipment, which may stand and wait for years for a freeze, is not too rational in this day of more basic needs.

An improvement in the delivery of supplies indispensable to the proper operation of a railway has been appearing lately. In the current year Polish State Railroads will receive, for example, 2,500 km of new track. (Until now, they received around 1,800-2,000 km of track annually.) This is indispensable because approximately 30 percent of the railway tracks are no longer suitable for use. About 100 tracks break daily, 50 percent due to wearing out and age. Those are also the causes of impeded train movement.

What should be done to improve the supply and transport of coal today and tomorrow? Poland depends on coal--that is a fact. Nevertheless, we do not respect this, our common property. Many warehouses harden their subgrades with coal, not using asphalt or concrete. Dumping coal in heaps also causes losses in its quality and heat productivity. Irregular mine operation also has an effect on car loading rhythm.

Therefore, a four-brigade system is being introduced into mining--including on Sundays and holidays--in order to dig coal with regularity. The mining industry daily loads approximately 50 tons of coal on trucks, yet does not have proper loading equipment. That is why there are lines of trucks at the mines. Consequently, six additional truck loading bases will be built (first results to be in 1980). There are plans for increasing coal delivery by mine trains.

In the past year, 14 million tons of coal were delivered by mine trains and this year 19 million tons are to be delivered by this means, whereas trucks will deliver 10.5 million. Over 25 million tons of coal is earmarked for direct use by the population. Throughout the country there are 3,300 fuel warehouses, of which 3,000 are in rural areas. There are too many to supply them all on time (lack of sidings and proper access roads). These could be retail sales points but not fuel storage centers.

"However," asked the journalists, "will the department of mines in agreement with the department of transport take care of their common transport investments so that larger quantities of the mined coal won't again remain on dumping grounds causing, among other things, interruptions in mine operations?" As long as transport is not on the list of priority departments, the help of such customers as the mining industry is indispensable. That is why coal must be carried from Silesia by the most economical transport, i.e., the railway. Perhaps sometime we will achieve transport by coal pipeline; in the meanwhile, however, we must depend on the railway much as we do on coal...

Road, Rail Transport

Warsaw GLOS PRACY in Polish 20 Jun 79 p 6

[Article by Karol Kudniewski: "Short Report on the State of Transport; passages enclosed in slantlines printed in boldface]

[Text] Transport continue to struggle with difficulties. The first months of the year, revealing its weaknesses, added to its enormous losses. This winter turned out to be the "moment of truth." It revealed that operations are at a crossroads; their results depend more on luck, human sacrifice and successful improvisation than on modern organization and accurate planning and they fail to fulfill the demands of the economy. The gap between the growth of production potential of industry, mining, construction and agriculture and the ability to satisfy their transport needs smoothly has reached a critical point. In this situation, half-measures and faith that somehow it will be all right did not work in practice.

[Facing the Truth] Let's recall a few figures. According to this year's plan, the railway was to have transported 496 million tons of freight. During four months, that is including April, less than 22.6 million tons were transported. Included in this are 5 million tons of coal, 1 million tons of ore 2. [number illegible] million tons of rock, 2,3 million tons of cement, 2 million tons of manure, 1.5 million tons of wood and over 2 million tons of various articles for the market.

It is true that since March the situation has gradually started to improve but in spite of that the month finished with a deficit of almost 2 million tons of freight. In April less than 400,000 tons were transported and only May brought the turning-point.

This situation caused a change in this year's plan. It was lowered to 16 million tons. Nevertheless, contrary to appearances, this does not constitute great relief for the excessively overburdened railway, because through the end of the year it will still have to transport about 18 million more tons of freight than it did last year. In other words, the railway, which since last year had no increase in track, traction devices or rolling stock should, beginning in April, carry about 2 million tons of freight per month. Will it be able to cope?

Remedial Measures

First a discriminating selection of needs was made and a list was established of priority freight which cannot wait. The first is of course coal which is lying around in enormous quantities on mine dumping grounds. Next, market goods, grain from ports, fodder, mineral fertilizer, cement and production materials.

It must be emphasized that the situation demands improvement in the efficiency of dispatching operations, in order to take optimal advantage of rolling stock. To this end provincial transport personnel are exerting pressure on railway customers to increase reloading efficiency and shorten car standstill time on stations and sidings. The responsibility for routine repair of minor car damage has been placed on the larger railway customers.

Rigorous steps were also undertaken to assure the regular flow of coal barges in Silesia.

These administrative undertakings were supported by the 12 April 1979 Council of Ministers resolution which assigns additional funds for speeding up the most indispensable capital expenditures for the enlargement of track capacity. Thus there will be new exits from Silesia, which is the most closed region. Trunk-lines going to the ports will be modernized faster.

All this will make freight transport more efficient, but will not solve all its weak points. It is worth adding that a part of the funds were earmarked for rebuilding and modernizing technical bases. Road Construction Machinery Shops in Minsk Mazowiecki, Pila and Bydgoszcz, among others, received such funds. This will make it possible to speed up repairs on cars and alleviate pressure in this sector.

No Allowances Made

A great deal is expected from the new, improved approach to increasing transport efficiency. It is true that this subject has been debated for years, but without results. Now this matter is to be thoroughly analyzed, together with the improvement of cooperative links among individual elements of the economy. Transportability of products and location of plants will be examined; this should lead to more balanced use of routes and the elimination of needless haulage.

Truck transport is not in better shape than the railway. It also did not fulfill its assignments during the first four months of the year. Polish Motor Transport trucks were 11 million tons short of the planned goal, and trade trucks were 19 million tons short. Nevertheless, no allowance was made--all arrears must be made up. Is this practical?

The specialists claim that it is. However, it requires significant effort. For instance, the workday must be increased by 10 percent. Transports must

run on Sundays and holidays. Monitoring of results and a more precise organization of transport must be adopted. Standstills and "transport of air" must be completely eliminated. It is essential also to adapt the maintenance of loading platforms, sidings and warehouses to the new organizational conditions. This is so that trucks do not waste valuable hours in lines at forwarding depots.

Resolutions undertaken for the purpose of increasing transport efficiency nevertheless are coming up against an impenetrable wall. This is because of a low and constantly decreasing technical readiness, caused by a lack of tires, inner tubes and spare parts. Last year, for example, out of the 4000,000 sets of tires which the State Motor Transport uses annually it received barely 100,000. This year the tire situation improved, but there is still a shortage of inner tubes and spare parts. That is what causes the idleness of 2,000 buses and as many trucks.

Curtailment of truck production in favor of parts, undertaken last year at the Starchowice Truck Factory at the initiative of the workers' self-government as a remedy for this state of affairs, unfortunately does not solve the problem. This is because not all stocked parts are needed for repairs, but only approximately 150 basic items which are subject to most rapid wear and need replacement. Industry doesn't see this, and without its good will this matter will not make progress.

To reproaches made about this situation, producers of tubes respond with numbers showing the dynamics of production over the past few years. The point is that an increase is shown in the value but not the amount; this does not demonstrate any improvement. It is high time to make decisions which will ensure deliveries of parts in quantities appropriate to the actual need. It is also necessary to make capital expenditure for the obsolete and sometimes impoverished transport repair base. It is also a weak link.

Roads

This winter, which paralyzed transport, also brought significant losses in the form of damage to road surfaces. This arose on one-third of the length of their basic network. There were twice as many serious cracks as in previous winters, and their repair requires temporary halting of traffic, use of detours, and significant output of materials and labor. Elimination of the most serious of them is planned by June 10. But removal of all them will surely drag out to August and maybe later.

For this purpose, as well as for repair of damage occurring during the flood period, roadmen received additional funds. But there will not be enough materials, tools and people for everything. That is why the rate of capital expenditures planned for this year will decrease. What is worse, construction of several bridges will "slide" into future years. All this can have repercussions on the smooth flow of traffic. After all,

it increases each year by 12 percent, There is an increase not only of the "little guys" but also of trucks which require special reinforced surfaces. Roadmen cannot keep up with these needs. And as the specialists claim, overstepping the threshold of road capacity usually engenders a dangerous growth in the costs of transport.

How wasteful of time, labor and means of transport unnecessary and irrational haulage is can be seen vividly on this background. The most urgent task, therefore, is to straighten out this area and bring organizational order.

Beyond this, it is necessary to do everything to aid transport in making up its capital expenditure deficits, in expanding its bases, in creating capability in proportion to the needs of a rapidly developing economy. Overcoming of the current difficulties is not and cannot be the job solely of the transport department, but is also the job of the other sectors of the economy.

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MORE RAIL CARS PLANNED TO IMPROVE COAL TRANSPORT

Warsaw SLOWO POWSZECHNE in Polish 7-8 Jul 79 p 2

[Article by S. Sok.]

[Text] The number one problem of the railroads is the transporting of coal out of Silesia. Approximately 5 to 5.5 million tons of coal are lying in coal dumps, but despite the enormous efforts of the transport sector it is not succeeding in unloading these vast coal yards. Coal cars are arriving in Silesia with increasing efficiency and speed but the railroad's capabilities are, after all, limited.

At the same time it is necessary to service border transloading stations, ports and the large industrial plants, such as Huta Lenina and Huta Katowice, in addition to the power industry. At present, electric power plants already have over 2.2 million tons of coal in reserve and by December, these reserves will grow to 3.5 million tons. Shuttle trains, which carry coal to the designated larger stations from where the coal is carted away by truck, are running with increasing efficiency.

In the overall transport balance, there continues to be a shortage of rail cars. Everything, however, points to an improvement in the situation in the near future. The Trans-Odra Metal Industry Works [Zaodrzańskie Zakłady Przemysłu Metalowego] ZASTAL in Zielona Góra, which each year has supplied the railroad with 2,000 coal cars, this year has resolved to increase production for the Polish State Railroads to 4,000 units.

ZASTAL, instead of this year's planned production of 7,600 railcars of various types will manufacture approximately 9,000. Due to the modernization of some of the production departments and to the greater mechanization of labor, ZASTAL has been able to increase plant productivity without additional investments. Above all, the assembly of running gear and rail car bodies has been accelerated and nearly the entire rail car welding process has been automated.

ZASTAL production capacity is also contingent upon co-production plants. One of these is the Railroad Rolling Stock Repair Plant [ZNTK] in Wrocław which

provides rail car running gear. If the ZNTK does not accelerate production or deliver running components on time, the total effort of the ZASTAL personnel will be for naught. And so far there have been problems with deliveries from Wroclaw.

Coal cars currently being manufactured in Zielona Gora can carry 60 tons of freight. That is a lot but ZASTAL designers have already come up with cars for transporting 100 tons of coal. The only problem with this is that the new 12-wheel coal cars require servicing by appropriate unloading equipment of which at present the railroad does not have an overabundance.

Several of the new, large-capacity coal cars are already being used in routine train runs and are passing the test. ZASTAL, however, has refrained from serial production of the new rail cars because neither clients nor the railroad are prepared to transport freight in such cars. Once again, insufficient and out-moded loading equipment has turned out to be a barrier on the road to transport modernization.

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ROMANIA

IMPORTANCE OF ENERGY CONSERVATION PROGRAM STRESSED

Bucharest REVISTA ECONOMICA in Romanian No 26, 29 Jun 79 pp 7-9

[Article by Prof Dr Docent Vasile Nitu: "Promotion of a Rigorous Energy Conservation Policy"]

[Text] Increased energy consumption and the location of consumers at long distances from the fuel sources usually lead to an increase in transportation distances. Extensive experience has been acquired in effective management of electric energy subsystems and this experience has shown the important advantages resulting from optimum loading of power plants, reduction of losses in transport of electric power, and increased operational reliability.

In optimizing the flows of fuels, a significant role will be played by fuel stocks available both to producers and major consumers. These stocks must be sized in such a manner that they will ensure operational continuity, independent of restrictions, fluctuations and interruptions in the flow of primary energy.

Developing some industrial branches and activities which are heavy users of energy, Romania has realized an average rate of growth in energy consumption of 12.3 percent per year during the last 30 years. Most of the time, this rate was 1.3 times greater than the average rate of growth of industrial production and the national income, while in the developed nations the same rate ratio was 0.75-0.95. In referring to such aspects in his speech at the Congress of Workers Councils in July, 1977, comrade Nicolae Ceausescu said: "The development of the economy at a high rate requires promotion of a strict policy for conservation of fuel and energy resources. As I have already pointed out, owing to unjustifiably high energy consumption levels, in order to realize one unit of the national income in this country we use twice as much conventional fuel as do the economically advanced states. We must put an end to this situation as quickly as possible by taking steps to reduce technological consumption and losses of electric power in transport and distribution systems, to achieve the fullest possible utilization of secondary energy resources, and to eliminate any forms of energy waste. We must do everything possible to achieve the most economic possible use of resources and to assure the base necessary for development of our economy at an intensive rate." These are words which clearly express the essential directions

of a comprehensive program of actions for the entire economy.

In recent years, as a result of application of the party's guidance, guidance which was materialized in radical measures for rationalization in respect to energy, the ratio between the average rate of growth of industrial production and of the national income has been reduced to values between 0.75 and 0.80, which are close to those in the economically developed countries. In evaluating these increases, we must, of course, proceed from one reality: in all countries with a developed economy, industry is the greatest user of energy (Table 1). In our country, industry is by far the most significant category of user (60-70 percent), with energy consumption by the population occupying modest proportions (about 10 percent). A first conclusion to be derived from this is that in order to conserve energy emphasis must be put on analysis of utilization and rationalization especially in industrial users.

Table 1

Distribution of Energy Use in 1976 in Romania and Several Industrialized Countries by Major User Categories

- Final Consumption - (1)						
Country	Unit of Measure	Internal Gross Consumption	Total	Industry (2)	Transport	Population, Trade, Agriculture, etc.
Italy	1000 tep(3) %	136.40	120.94 100	59.25 49	21.15 17.5	40.54 33.5
France	1000 tep %	178.20	159.64 100	68.63 43	30.67 19.2	60.32 37.8
FRG	1000 tep %	260.60	235.31 100	101.96 43.3	35.84 15.2	97.51 41.5
England	1000 tep %	206.84	180.86 100	76.19 42.21	30.93 17.1	73.74 40.8
European Economic Community	1000 tep %	922.70	100	366.10 44.1	135.59 16.3	328.69 39.6
Romania	1000 tep %	98.5	84.24 100	56.92	4.45 5.3	23.15 27.1

(1) For other countries, includes consumption from the energetics sector but excludes consumption for auxiliary services from power plants and for pumping.

- (2) Also includes non-energy consumption.
 (3) tep = tons of equivalent petroleum

Source: Marino Valtorta, PREVISIONI DEI FABBISOGNI ENERGETICI ITALIANI, p 9, October, 1978, for the other countries, and for Romania BALANTA ENERGETICE PRIMARE SI BALANTA COMBUSTIBILIILOR IN ANUL 1977 (Primary Energy and Fuel Balances in 1977), (Central Directorate of Statistics).

As a result of the fact that for a long time it had an excess balance of petroleum products, our country developed energy-intensive industries. These industrial branches represent about 50 percent of the total industrial production, but appreciably more in respect to energy consumption. Metallurgy and chemical production alone consume about 58 percent of the resources used by industry. In connection with the changes which have taken place in the energy balance of our country and on the world level, the party and state leadership has given guidance for the reorientation of industry. As pointed out by the secretary general of the party, we must "promote a firm policy of energy and raw materials conservation, at the same time orienting efforts toward improving the structure of our industry toward development of the branches and sectors which use less energy." On the basis of this reorientation and in order to achieve optimized energy utilization, slower rates of development for energy use are called for in all branches than in the past. Similar more and more reduced or even negative rates have also been prosed over the long term in other countries (Table 2).

Table 2

Average Rates of Growth in Energy Consumption Planned in Various Countries

	1980 1975	1985 1980	1990 1980	1990 1985	2000 1975
Japan	4.7*	6.1			
England			2.0		-0.7
Sweden	2.7**		1.1		-1.15
Holland					-0.8
Denmark					-0.19
Bulgaria	11.6	5.3			
Hungary	7.1	3.8			
GDR	2.6	2.5			
Poland	4.6	5.3			
Czechoslovakia	4.4	2.7			
FRG	3.2	3.4			0.5
France	4.6*				0.3

*) 1980/1973

**) 2010/2000

There are, however, those who believe that energy consumption will continue to increase in all countries, but at differentiated rates, that is, higher in the developing countries and lower in the developed countries. In any

case, however, an increase in the cost of fuel, and especially hydrocarbons, introduces an interdependence between cost and consumption (Figure 1), thus objectively causing a reduction in consumption. Changes in the structure of industry must bring about a widening of the gap between the rate of growth of industrial production and the rate of growth of energy consumption in industry along with a corresponding accentuated drop in specific energy consumption (Figure 2) since only in this way will it be possible to achieve an effective dimensioning and covering of the energy requirement.

consumption in
thousands of tons
of conventional
fuel



Figure 1

Another characteristic of the current stage of development of society is the accentuated increase in the proportion of electric power in total energy consumed. For instance, while in 1950 at the world level only 19 percent of the energy consumed was electric power, in 1970 this figure increased to 25 percent, while figures of 40-45 percent are anticipated for the year 2000. The

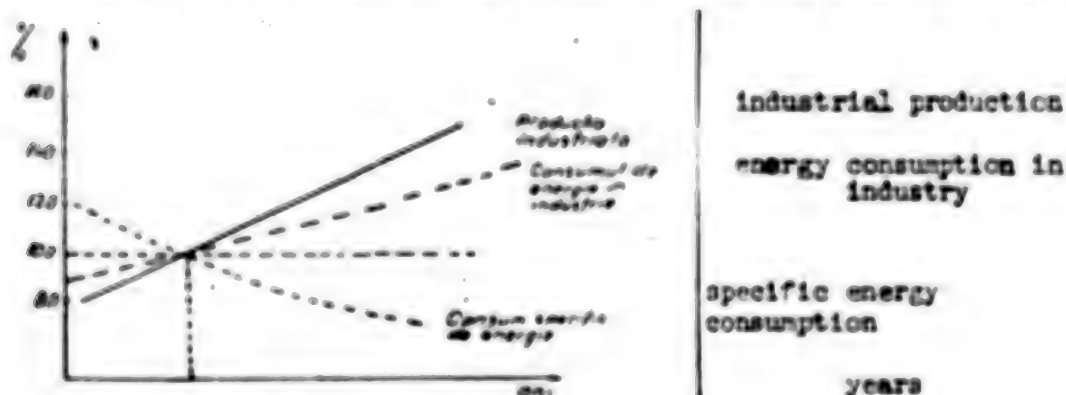


Figure 2

process of intensification of utilization of electricity takes place because of transport and distribution facilities, transformation into any form of energy, regulation, low specific consumption, etc. It is currently applied

by the changeover to electric power for both old and new equipments. It is obvious that conservation of electric power is one of the most significant areas in which customers can conserve energy.

Ways and Means of Reducing Energy Consumption

The ensemble of measures recommended by the leadership of the party has been concretized in significant savings and in improvement in the energy indicator of the national economy. The increase in the degree of utilization of energy resources is illustrated by the decrease in specific energy consumption related to unit of national income. This decrease was from 3.98 kilograms of conventional fuel per dollar in 1973 to 2.78 kilograms of conventional fuel per dollar in 1976, etc. On the other hand, the various levels which indicate clear progress show that there are significant reserves for reducing energy consumption in view of the fact that in 1976, for example, this indicator was as follows in other countries: 1.61 kilograms of conventional fuel per dollar in the GDR, 1.56 kilograms of conventional fuel per dollar in the Hungarian People's Republic, 1.20 per dollar in Yugoslavia, 0.90 per dollar in Belgium, 0.79 per dollar in the FRG, 0.66 per dollar in France, 0.37 per dollar in Switzerland, etc.

A detailed comparison of these levels can obviously reveal some directions for the structuring of future research, technological design and exploitation organization activities. However, it must be pointed out that our practice demonstrates that reductions in consumption can be achieved for each category of user. Under these conditions, selection of the optimum variant for energy development at the macroeconomic level must be organically incorporated within a system of energy indicators: kilowatt hour, kilograms of conventional fuel per dollar of national income; kilowatt hour, kilograms of conventional fuel per inhabitant; kilowatt hour, kilograms of conventional fuel per one million lei of industrial production, etc. Efficient energy balances can be drawn up by good collaboration between technologists and energy specialists. Numerous case studies have shown that great reserves exist. For example, for a deep ingot heating furnace it was possible to increase the output of the furnace from 48.8 percent to 85 percent with a decrease in the fuel requirement from 257,040 kilocalories per ton to 117,838 kilocalories per ton.

In industry, which is the greatest user of energy (60-70 percent of the total, as already indicated), the most efficient method of identifying the possibilities for conservation and rationalization of energy in production processes is the energy balance. The energy balance represents a quantitative and qualitative synthesis of the technical and economic characteristics of production and transport installations and the transformation and utilization of energy.

As a result of the appearance of the decree, 620 energy balances were prepared, in almost all industrial units. In light of the experience gained and taking into consideration the fact that not all of the industrial units have benefitted from a specialized and organized technical assistance program, I believe that at this time we should reestablish and bring up to date the

actions and even specialization of a unit in industrial and communal energy problems from the conception stage to the practical implementation of strictly specialized works.

Another important action in reducing energy consumption is selection of technologies and technological equipments with superior effectiveness and the modernization of existing ones. I must point out here that the effectiveness of an aggregate designed to operate under nominal conditions does not express the energy consumption fully, since under real conditions the aggregate functions for certain periods of time with partial loads or empty. In selecting the variants of the best technologies it is also necessary to consider the criterion concerning minimization of fuel consumption in addition to the criterion of minimum actualized total costs.

An equally important aspect is improvement of thermal insulation in social and industrial buildings and in technological installations. The favorable effects of these measures are known; however, the problem still has unfortunately not been given time and attention enough. While insulation of technological installations or transport lines is receiving considerable attention on the part of specialists and is considered in the preparation of energy balances, the same situation is not encountered in the construction of homes, social-cultural buildings, industrial halls which require heating, etc. The problem is just as valid for new buildings as it is for existing buildings. To remedy this it is necessary to revise the existing regulations by introduction of some limits for heat loss, and for existing buildings to develop solutions and to produce suitable materials so that the specialized organizations or even the tenants can apply them with ease.

In the chemical industry, just as for most of the activities in the economy, the principal means of conserving energy is by recovery, recirculation, especially of heat. In 1978, the energy resources recovered in the chemical industry in our country provided about 21 percent of the thermal energy and fuel requirement utilized for energy purposes. However, it is felt that there are still numerous ways to reduce energy consumption, since at the 1980 level the quantities of thermal energy recovered will have to reach five million tons of conventional fuel.

Modern agriculture has become an important energy user, both through direct consumption (particularly because of mechanization, irrigation and greenhouses) and indirect consumption (the utilization of herbicides, fertilizers, pesticides, etc.). It is believed that the most significant savings can be achieved through adoption of wise solutions in irrigation (through utilization of gravitational solutions) and in greenhouses (through maximum use of solar energy).

The electrical and thermal energy branch, which includes installations for the production, transport and distribution of energy, consumes 22 percent of the nation's primary energy. There are permanent and well organized efforts within this branch for optimization, both from the standpoint of development

planning and from the standpoint of exploitation. Although the total effectiveness of the electrical and thermal energy branch is at the level of world achievements, there exist continued efforts for adoption of improved solutions for reduction to a minimum of technological consumption in electric power plants and in the transport and distribution of electric power and heat. For instance, there are efforts to improve and expand the thermification system, to realize a vast program for construction of hydroelectric power plants, and to develop new resources for energy conservation.

And now there is one other aspect. With a deficit energy balance, that is, the import of energy, the export of energy through products in which it is incorporated must be made the object of an economic analysis and an analysis to determine the opportuneness of effecting such exports. For instance, some products are produced with high specific consumptions, such as for example: electrolytic aluminum -- 4.7 tons of conventional fuel per ton; greenhouse vegetables -- 7.1 tons of conventional fuel per ton; synthetic fiber -- 3.69 tons of conventional fuel per ton; cellulose and semi-cellulose -- 1.11 tons of conventional fuel per ton, etc. From the standpoint of energy incorporated, the export of energy represented in these products is especially high.

It can be seen from the above that in the current stage of development of the national economy the most important energy resource of the nation is energy conservation, a problem which is the focus of efforts and actions in the economy.

Development of an energy strategy which will make it possible within a relatively short time for our country to achieve the efficiency indicators -- kilogram of conventional fuel per dollar; kilowatt hours per dollar of national income, etc. -- realized in the industrially developed nations and those nations with a superior utilization of energy resources requires extensive interdisciplinary research in respect to improvement of technological processes, achievement of increased effectiveness in installations and apparatus which use energy, improvement of the insulation of social and industrial buildings, in short, a new philosophy of energy use.

Our country has gained good experience in the field of designing optimized industrial subsystems through realization of the industrial platforms. The industrial platforms have made it possible to reduce specific investments in installations for providing electric power and heat, industrial water, communication links, etc. At the same time, it must be mentioned that there has not been consistent adherence to the trend of technological integration of the "circular active process," which is proven by the high proportion of secondary energy resources still not utilized, the raw materials waste, spoilage, etc. The problems are similar also for the rural and urban areas with industries and the specific energy requirements of these areas. Integration into the territorial specific of each industrial area must be reflected both through actions for environmental protection and through utilization of the energy which can be regenerated from the respective geographic area: geothermal energy, solar energy, wind energy, rivers with slight slopes, the biomass,

biogas, industrial and household waste, etc. In this context, identifying optimum common zones can lead to discovery of new possibilities for complex and complete utilization of raw materials and energy and more satisfactory integration of these into the environment.

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ROMANIA

IMPROVEMENTS SUGGESTED FOR INDUSTRIAL SUPPLY SYSTEM

Bucharest REVISTA ECONOMIC in Romanian No 13, 30 Mar 79 pp 6-7, 24

[Article by Mircea Pirjol: "Technical-Material Supply In Continuing Change, At the Level of Current Needs of the Economy"]

[Text] One of the fundamental problems with a determining influence upon the fulfillment of the provisions of the national development plan is the achievement of the supply and sale of production in good conditions. In connection with this, the party documents have more than once stressed the fact that the primary condition for good supply is the elimination of the existing deficiencies in production activities and the achievement of planned and contracted physical production in strict accordance with plan provisions.

In judiciously organizing their activities and establishing adequate measures, the vast majority of enterprises are achieving their production goals under good conditions and, at the same time, honoring all their contractual obligations. It is no less true, however, that there are still those units which do not regularly fulfill their physical production goals, thus creating perturbations in their chain of partners with whom they have contractual relations. The direct result of this situation is the fact that in the relatively short period of time that has passed since the beginning of the year, over 17,000 delinquent contracts have been recorded, with each one of these containing a much greater number of elements. From a value point of view, the delinquent contracts for the first two months total over three billion lei. That is why the primary condition for a radical improvement of supply is the integral fulfillment of the production plan in each unit.

The Need to Extend the Use of Long Term Contracts

It is known that the party is constantly working so that all economic activity will be based upon the establishment of certain long term relations that will allow each unit to have its raw materials or, in other words, to be able to make good preparations over a long period of time for its production.

What happens, however, in reality? Even after the plan figures are approved and after the supply contracts are concluded, numerous changes and so-called "further specifications" appear in the physical production. This is the source, as would be natural, of the modification of a great number of economic contracts. We are especially referring to the products of the machine building industry, the wood processing industry and light industry where, because of insufficient concern on the part of the enterprises for timely contracting with the purchasers and establishing a portfolio of ensured-sales orders, the structure of the types of goods to be produced is not defined prior to beginning carrying out the plan. In these industries, over 30 percent of the supply contracts concluded usually suffer modifications, starting even in the first quarter of the year.

At the current level of the complexity of the economy it is inconceivable that all the detailed relations could be established in any way other than direct contact between the producer and the consumer. An analysis carried out in some machine building units showed that to produce certain products between 300 and 500 enterprises in the country work in cooperation. To this figure is added a series of imports procured through different foreign trade enterprises. What does this mean? That a modification in the physical plan for a certain product has an influence upon the production of those 300 to 500 collaborators who, in turn, are also tied in numerous ways to other units that provide material resources. This example illustrates: the importance of the greatest possible stability in the physical production plan and, especially, the need to conclude long term contracts with the product consumers for the purpose of ensuring both all the raw materials and materials and all the components and subassemblies for each enterprise that participates in the production process.

More and more the problems of technical-material supply are not problems of quantity or of providing a certain volume of material resources that are resolved by establishing a material balance, but, first of all, they are problems of products types, as well as delivery schedules strictly correlated with the activities program of each unit. That is why the improvement of the system of contractual relations and the establishment of these relations over a long term are essential problems at the current time for the improvement of supply. There is not justification why contracts for certain raw materials from our country cannot be concluded for periods longer than even five years, keeping in mind that, especially in the mining industry, on the basis of approved exploitation documents and geological reserves the volume of production for each unit can be established in advance and, along these lines, for consumer units in the field of electrical energy.

The Consequences of Delaying the Forwarding of Resource Allocations

There are similar problems also in regards to establishing short term contractual relations. It must be pointed out that there are a series of violations of plan discipline which constitute the source of certain

frequently grave disturbances in the technical-material supply process. Although the law invests the supply balance coordinators with the precise responsibility of providing the national economy with the necessary amount of products within their sphere of activity, in numerous cases there are situations where allocations are not forwarded in accordance with plan provisions and from the material supplies that were established by these coordinators themselves. At the current time, for example, the Ministry of the Metallurgical Industry has not forwarded allocations for approximately 15 percent of the resources outlined in its plan for the first quarter of this year. Because of this, a series of enterprises which have production goals based on ferrous and non-ferrous metals that are supplied from the balance still do not know the source or time frame for their supplies. Such violations of plan discipline can in no way be justified. For that reason, a task of the utmost urgency is for the supply balance coordinators and all the economic ministries to immediately forward all allocations in accordance with the approved plan provisions.

There are also negative consequences in the practices referring to the arbitrary cancellation by certain coordinators of allocations forwarded by some ministries and centrals; a practice that violates the law. We are especially referring to the General Directorate of Supplies and Sales in the Ministry of the Metallurgical Industry and to some of the units of the Ministry of the Chemical Industry (the Industrial Central for Processing Rubber and Plastics and the Industrial Central for Medicines, Cosmetics, Dyes and Lacquers) that practice such "realignments" in their economic contracts for actually achieved production by modifying or arbitrarily and unilaterally cancelling supply allocations, frequently on the last day of the quarter or the year for the purpose of unjustifiably and uneconomically exonerating themselves of the responsibility of not fulfilling the contracts of their subordinate enterprises. Such a method, on one hand, places in question the idea itself of concluding economic contracts during a time when these organizations lose their objective on the basis of an arbitrary act. On the other hand, under the conditions of the improved economic-financial mechanism, such a practice prejudices the consumer enterprise and creates unjustified advantages for certain producers who do not fulfill their obligations. Each coordinating ministry, including the Ministry of Technical-Material Supply, must work with much greater firmness in this direction and eliminate, by applying legal measures, this type of grave violation of economic legislation.

Disturbances in providing a steady flow of supplies also produce deviations in making deliveries in accordance with plan provisions. Although by law it is clearly outlined that no materials on the established list can be sold without being included in the allocation system stemming from the material balance, there still are numerous cases of violations where the production enterprise or even the consumer sells such materials outside the allocation system. A recent check made at 10 construction and assembly enterprises and trusts, which did not fulfill a single one of their production plan elements in 1978, pointed out the fact that they are selling

outside the established quota and allocation systems important amounts of metals, cement, ceramic products, prefabricated elements from the B.C.A. [expansion unknown] and other materials to cooperatist and state units, handicraft cooperatives and service organizations, depriving other units of these resources. The Iasi Metallurgical Enterprise, the Roman Pipe Enterprise, the Buzau Wire and Welded Plate Enterprise and the Galati Steel Combine are selling a portion of their production outside of the plan channels. Through these channels, many thousands of tons of metal have flowed to areas other than those established in the plan balance, depriving certain priority consumers and, especially, the producers of technological equipment of resources necessary for the fulfillment of forecasted goals. The major interests of the country demand the strict respect for the allocation system as an essential element for each enterprise to achieve its obligations in the complex chain of the national economy.

When Long Routes Take the Place of Short Cuts

Improvements in the technical-material supply activities can be made by simplifying certain channels both during the pre-contract phase and during the process of concluding economic contracts. Currently, the cycle for completing an economic circuit after approval for a commercial balance is nearly two months. This would be in the best possible case where there are no pre-contractual litigations whose resolution would lengthen this period greatly over different phases. The process is determined by the manner in which the specifications for the materials types and dimensions currently circulate and are centralized, at different levels, from the consumer enterprises to the central and to the consumer ministry and then to the supply balance coordinators who, through a reverse process, forward the allocations and distributions upon which the contractual relations are established.

Practice has shown for some general use materials, such as, for example, tools, low voltage electrical devices and different types of armatures for industrial installations that are supplied completely by the county supply bases, these channels for specification and distribution can be greatly simplified by carrying them out at the local level. A solution that merits examination is the one whereby the material specifications are made by all the enterprises in the county to the respective county supply base while the base, in direct contact with the coordinator, obtains the necessary allocations on the basis of which contracts are directly concluded for non-shippable quantities and between consumer enterprises and supplier enterprises for shippable quantities (see the diagram below). In this manner, there would be both a correlation of the specifications and the contracts with the existing stocks for each material and product in the enterprises and supply bases and a unitary control over the deliveries by the Ministry of Supply and the county supply bases. At the same time, there could be a noticeable reduction in the pre-contractual process and the elimination of a number of steps in pre-contractual litigation.

Simplificarea sistemului relațiilor precontractuale și contractuale

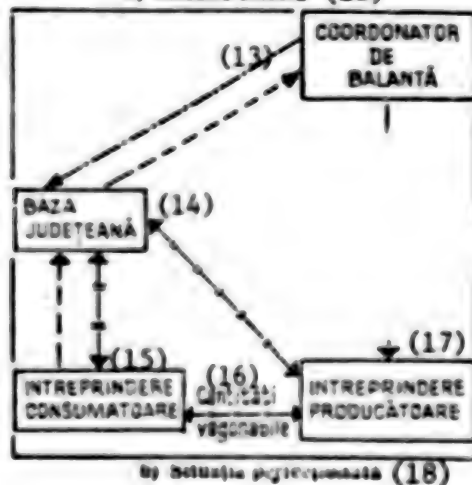
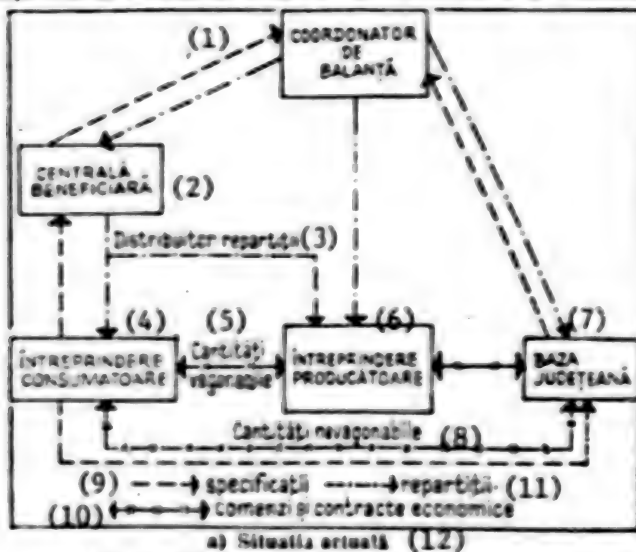


Diagram 1. Simplification of the System of Pre-Contractual and Contractual Relations

Key:

- | | |
|-----------------------------------|----------------------------|
| 1. Supply Balance Coordinator | 15. Consumer Enterprises |
| 2. Consumer Industrial Central | 16. Shippable Quantities |
| 3. Distributor of Allocations | 17. Production Enterprises |
| 4. Consumer Enterprises | 18. Improved Situation |
| 5. Shippable Quantities | |
| 6. Production Enterprises | |
| 7. County Supply Base | |
| 8. Unshippable Quantities | |
| 9. Specifications | |
| 10. Economic Orders and Contracts | |
| 11. Allocations | |
| 12. Current Situation | |
| 13. Supply Balance Coordinator | |
| 14. County Supply Base | |

There should also be a study of the possibilities of certain improvements regarding the system of moving resources in the economy. Currently, a series of products and even mass raw materials are contracted for through the intermediary of specialized bases subordinate to certain ministries in a system of organized or paid movement. In such cases, these bases in fact have merely a role of carrying out certain staff operations and office work for which, however, they collect a commercial charge of up to 1.5 percent, a charge which leads to the unjustified increase in cost of the products and to the artificial increase of the material costs to the consumer enterprises and, in the end, to the entire economy. Over a year, the total volume of these charges for a series of operations reaches approximately one billion lei. In our opinion, we should eliminate any type of transit deliveries between supply bases for certain raw materials and materials. Everything should be contracted directly between the producer and the consumer, without the intervention of any type of intermediary organization.

There is also this same problem regarding equipment. Through the supply bases of the Ministry of Electrical Energy, the Ministry of Industrial Construction, the Ministry of Light Industry, the M.A.I.P.A. [expansion unknown], the Ministry of the Chemical Industry and others roll different types of equipment which, instead of being sent directly to the place of assembly or the work site where they will be used, unjustifiably stand for long periods of time in these supply bases, increasing their costs by the charges added for being in the bases. In other situations, imported raw materials are sent through the transit system, such as, for example, the case of iron ore which is to be partially directed through the supply-sales base of the Ministry of the Metallurgical Industry in Bucharest. Actually, this base has not and is not receiving a single ton of this resource, but, for the purpose of achieving a volume of transit in order to justify its existence, carries out such staff work that otherwise falls under the direct responsibility of the iron ore consuming siderurgical units.

Similarly, the supply channels can also be improved for other materials and imported products that are moved in small, non-shippable quantities for each consumer. Currently, these materials normally arrive in the railcars of the foreign partner at the specialized bases of the different ministries located in Bucharest or in other central areas of the country from which, later, they are re-directed frequently in the reverse direction towards those locations in areas near the border points where they originally entered the country. The optimum use of this process requires the organization of certain border bases to receive all these materials upon their arrival and to ensure their shipping to consumers in the country. In this way two essential advantages could be ensured: 1) the elimination of this circuitous transportation process and the corresponding decrease in the time for goods to arrive at the consumer; 2) the reduction of hard currency expenditures for foreign railcars used in import activities by noticeably shortening the period of time they are on Romanian territory.

Requirements for Improving the Activities of Supply Bases

Improvements are also possible in the movement of certain materials through the county supply bases. First of all, we are referring to the fact that currently metallurgical materials are contracted by the units of the Ministry of the Metallurgical Industry with only 11 supply bases and these bases, in turn, deliver their amounts to the other nearby bases that serve them. In this manner, there is actually a double handling and loading for a significant volume of metal, approximately 350,000 to 400,000 tons per year, and an artificial increase in the roundabout transportation process. One revealing example of this is as follows: deliveries of metals from the Cimpia Turzii Siderurgical Enterprise to the Suceava County Technical-Material Supply Base are made through the supply base in Iasi. However, the railcars first pass through Suceava and arrive in Iasi where they are unloaded and later reloaded and redirected back to Suceava! The elimination of such practices presupposes the conclusion of delivery contracts for metals in non-shippable quantities with all 40 county and Bucharest Municipality supply bases.

Along this line of thinking, we must examine the opportunity to eliminate certain parallelisms which currently exist between some specialized bases of the ministries and the county technical-material supply bases. Some materials forwarded by these specialized bases are received from a county base and move on through two bases, which brings an unjustified increase in supply costs. Such improvements would have a direct effect also upon improving the stock situation which, currently, is still scattered over too many enterprises and bases and would make an important contribution to the job of returning to the economic circuit an important amount of stocks of raw materials and materials accumulated above approved norms.

Our economy has all the conditions necessary to ensure good technical-material supply in accordance with plan provisions and approved consumption norms. It is necessary for the units and organs that have tasks and attributes in this field to improve their activities and to militate with full responsibility so that the established plan objectives are regularly achieved for each type of product and that the regulations in effect are fully respected regarding technical-material supply.

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ROMANIA

INCREASED USE OF PREFABRICATION IN CONSTRUCTION NEEDED

Bucharest REVISTA ECONOMICA in Romanian No 13, 30 Mar 79 pp 9-10, 24

[Article by Gh. Ghitulica: "Construction Time Reduced By Increasing the Use of Prefabrication in Construction"]

[Text] A high degree of industrialization of construction constitutes an essential contribution for the complete fulfillment of investment plan provisions and for shortening the construction time for new production facilities and increasing labor productivity at the work site. It presupposes the transformation of construction into an industrial process by extending the technological transfer of activities from the work site to the factory. This would lead to carrying out in the enterprises between 80 and 90 percent of the volume of projects necessary to build housing units and social and cultural buildings and to the delivery to the work sites of certain already finished building sections equipped with all utilities, with only the assembly and connection of the prefabricated sections to be completed at a high level of productivity.

In a partical sense, for a higher degree of industrialization there is need to simultaneously carry out operations on the broadest possible scale for using certain construction materials that have received high levels of finishing work in the factory, for mechanizing assembly operations at the work site and for finding and using on a broad scale certain new, light materials with superior durability parameters. In this context, it is clear that increasing the degree of industrialization requires the well coordinated active participation of the entire group of factors involved, from the builder to the planner, from the construction materials manufacturer to the researcher. In this issue of the magazine, we will present some specific means of accelerating the degree of prefabrication.

What Does a Comparative Analysis of the Status of the Industrialization of Construction Reveal?

As an important means of industrialization, the prefabrication of construction elements must be applied on a much greater scale than today, using all the possible and efficient forms for this depending upon the state of the art at the moment: light and partial prefabrication that is centralized at the

work site (using pre-poured elements) and heavy and complete prefabrication, progressively increasing the percentage of factory prefabrications. Factory and full prefabrication constitute the most advanced form of the industrialization of construction, being capable of providing construction elements and construction parts that have high performance levels, increased quality at a lower price upon which buildings can be assembled in a very short time. This is so because the factory prefabrication is suited to a high level of production mechanization and automation, achieving not only a great savings in manhours, but also the spread of higher quality and precision in the work. Especially important in this is that the factory technological lines for the production of prefabricated elements must be so designed that they ensure both series production and a broad diversification of the types of elements called for by functional and esthetic conditions.

In the developed countries, the level attained in the prefabrication of housing units is currently characterized by several aspects: a high degree of prefabrication (buildings fully prefabricated from large panel sections represent 80 to 85 percent), a high percentage of semifabricated and prefabricated industrial products having a high degree of finish work, already installed equipment and precision (with the use of manhours on the work site of only 10 to 12 hours per square meter of area completed) and a modern fabrication technology (conveyer and "assembly line" technology predominate). There is the large scale use of advanced mechanized procedures for framing, frame disassembly, painting and cleaning (which allows the manhours for fabrication to be 10 to 12 hours per cubic meter), with short heat treatment cycles (four to five hours).

In Romania, research in the field of construction has also pursued projects to find solutions to increase the degree of industrialization, reducing the percentage of construction and assembly projects in total investments through the promotion of the use of large concrete panels in housing construction, through the development of categories and diversification of construction elements, through the creation of new construction materials and so forth. With all this, the degree of industrialization of construction projects is still low in comparison with other countries. For example, the percentage of housing units made from fully prefabricated large panels in the total number of apartments built in 1977 in Romania was 30 percent, while in East Germany it exceeded 65 percent and in Czechoslovakia it was nearly 90 percent.

In this field there are still many unused reserves. Thus, if in housing construction in general the percentage of fully prefabricated apartments at the level of the entire construction industry grew from five percent in 1960 to over 30 percent in 1978, and in certain counties (Timis, Cluj) to over 45 percent, in other cases the percentage of fully prefabricated apartments has continued at a low level because of the laziness in thought and action of certain specialists due to the fact that the development of prefabrication capacities was not always correlated with the rapid rate of growth of labor productivity.

From an analysis of the situation presented here, the results are that there are still certain obstacles at the housing units construction work sites in the path of a more accentuated increase in labor productivity which cause the consumption of manhours to sometimes be two to three times greater in comparison with the results obtained in other countries. The causes can be found in: a low degree of industrialization of concrete, a small degree of finishing work on the prefabricated elements that arrive at the work sites, a persistent use of wet procedures in a still large number of brick work jobs on housing units. Until now, neither research or planning have always found the most efficient solutions that will lead to the elimination of tile and inlay work, operations with a high amount of manhours used.

Many shortcomings have also been created by the insufficient work of researchers and planners to achieve certain sections having a high degree of prefabrication for the new housing unit construction in Suceava, Tulcea, Vaslui and so forth. The fact that the construction materials industry did not make available a broader diversification of efficient materials that would make a more substantial contribution to increased productivity. And, there were some delays in the development and construction of new prefabrication production capacities compared to the rate required by the increase in the level of industrialization of construction projects.

A Short Cut from Experimentation to the General Spread of Modern Technologies

The achievements made up until now in the field of industrializing construction require substantial improvements. For the full achievement of the investment plan provisions for 1979, a much more decisive action appears necessary for the elimination of shortfalls in this sector and the increase of the efforts of all the factors involved in increasing the percentage of manhours expended in the factories and work areas compared to the amount expended at the work sites. In connection with all this, it is necessary to have: a more sustained effort for the continuing improvement of the level of installing equipment and finishing work on construction elements at the factory that will, in the end, lead to obtaining prefabricated elements fully produced through an industrial process. Much greater efficiency is required in the large scale production of completely finished facade panels with the woodwork attached, piping installed, in the elimination of tile work and inlays, in the use of wallpaper instead of paint (eventually the painting will be mechanized at the factory) and in the introduction of light granulated panels. These are actions that would bring about a reduction in manhours at the work site by approximately 45 percent - from approximately 23.5 hours per square meter of area built to 12.5 hours per square meter (see Table No 1).

There must also be an increase in the volume of production of prefabricated elements from reinforced concrete (large panels and panels used for mixed structures) through the spread of the use of high productivity conveyer and assembly line type production lines. The use of these types of production

Tabelul nr. 1

Eficiența mării gradului de echipare și finisare
a panourilor mari din fabrică

(1) Soluții constructive și tehnologii:							
(2) Zidărie portan- tă cu planșee prefabricate		(3) Panouri mari în tehnologia actuală		(4) Panouri mari în tehnolo- gie nouă cu grad ridicat de finisare și dotare din fabrică			
(5) om-ore ap	(6) om-ore mp Ad	(7) om-ore ap	(8) om-ore mp Ad	(9) Reducerea manoperei față de zidăria portantă	(10) om-ore ap	(11) om-ore mp Ad	(12) Reducerea manoperei față de zidăria portantă
Manopera (13) pe șantier	2 630	30	1 354	20	1,5 ori	814	12-13,5
Manopera (14) în fabrică	135	2	400	6	—	478	7,0
Manopera (15) totală	2 765	32	1 754	26	1,25 ori	1 292	13-20,5

Table No 1. The Efficiency of Increasing the Degree of Equipping and
Finishing Large Panels from Factories

Key:

1. Constructive Solutions and Technologies
2. Bricking with Prefabricated Floors
3. Large Panels in Current Technology
4. Large Panels in New Technology Having High Degrees of Finish Work and Equipped at the Factory
5. Approximate Manhours
6. Manhours per Square Meter of Area Completed
7. Approximate Manhours
8. Manhours per Square Meter of Area Completed
9. Reduction of Manhours Compared to Bricking
10. Approximate Manhours
11. Manhours per Square Meter of Area Completed
12. Reduction of Manhours Compared to Bricking

allows for the reduction of manhours at the work site by 2,25 times compared to bricking and by 1.5 times compared to the current technology with large panels; for the reduction of total manhours (factory plus work site) by 1.55 times compared to bricking and by 1.5 times compared to current technology with large panels; for the increase of the value of the prefabricated elements produced in the factories, from 35 percent for the current technology to 60 percent for the new technology, with on-site projects being reduced from 65 to 40 percent; and, for the reduction of total manhours for the building of housing units from large panels by 21 percent and manhours at the work site by 32.5 percent compared to the current technology.

By adopting certain construction systems based upon the use of conveyer type prefabrication production technologies and by increasing the degree of equipping and finishing large panels in the factories we can obtain an important savings in manhours at the work site, with a relatively small increase in the use of labor at the factory (see Table No 2).

Tabelul nr. 2
Eficiența unor tehnologii moderne
combinate cu producerea unor ma-
teriale de construcție în fabrică

(1) Sistemul constructiv	(2) Consum de manoperă		(5) Total
	(3) Fabr.	(4) Santier	
Integral din panouri mari (nefinisate în fabrică) (6)	6	20	26
Mixte — cofraje metalice și prefabricate de fațade și planșee (nefinisate în fabrică) (7)	4	22	26
Integral din panouri mari cu grad avansat de finisare și echipare și cabine sanitare (8)	7	13,5	20,5
Mixte — cu panouri de fațadă finisate (9)	4	20	24
Monolit sau zidărie (10)	20	20	20

Table No 2. The Efficiency of Certain Modern Technologies Combined with the Production of Certain Construction Materials in the Factory

Key:

1. Construction System
2. Consumption of Manhours, Hours per Square Meter of Area Completed
3. In the Factory
4. At the Work Site
5. Total
6. Completely of Large Panels (Unfinished at the Factory)
7. Mixed - Metallic Frames and Prefabricated Panels and Floors (Unfinished at the Factory)
8. Completely of Large Panels with a High Degree of Finishing, Equipment and Bathrooms
9. Mixed - With Finished Facade Panels
10. Solid Concrete or Brick Work

The efficiency of the generalized application of conveyer technology appears even greater if we consider that by achieving the provisions of the housing plan for 1980 in this construction system we could achieve an important savings in the work force compared to 1976.

Special attention will have to be given to bringing on-line, on time, new plan production capacities that are slated to begin operations this year and to recover the shortfalls in this field from last year. A more adequate coordination must be achieved in research in the field of construction materials with the requirements for highly industrialized construction technology. It must lead to the creation of a various groups of much more diversified construction materials than in the present that are suited to stimulating their processing and assembly in the factories and to the reduction of the total consumption of manhours per unit of surface area built, especially of the consumption of manhours at the work site. In this regard, it is necessary to broaden the varieties of panels for facades, dividing walls, balcony overhangs and so forth.

It must lead to the extension of all modern technologies that ensure a reduced rate of manhour consumption, the reduction of the heat treatment cycle and so forth. This includes full or partial prefabrication construction solutions of large and medium-sized dimensions, totally or partially finished elements with equipped installed in the enterprises, of extending the use of higher quality cements, light granulated concrete, welded panels and so forth.

In this regard, there is special importance in accelerating the process of creating combinations of houses that will serve to provide solutions, in a unitary sense, for all the problems concerning the planning of construction projects from spatial elements and other modern construction procedures, the technology of production, the transportation and assembly of prefabricated elements up until the "key is turned over" to the home owner.

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SUGGESTIONS FOR CORRECTING DEFICIENCIES IN METALLURGY

Bucharest REVISTA ECONOMICA in Romanian No 12, 23 Mar 79 pp 2-3, 6

[Article by V. Boescu and L. Tintea]

[Text] For the production of some high-standard items this country was long dependent on special steel imports. This situation was largely resolved by the completion of the Tirgoviste Combine. During 5 years alone, this unit arranged for the production of 116 brands of special steels which are now being turned out in an array of more than 4,000 kinds and type-sizes. The new brands of special steels involved together with those turned out at the electric steel works of Hunedoara, Resita, the Bucharest 23 August Enterprise, and other facilities provide the machine building industry with favorable conditions for producing various systems of machines and installations with high parameters and low specific weight, at a high competitive level. This is a great achievement of the Romanian metallurgical industry. It reflects our party and state policy of expanding industry, of raising economic efficiency, and of switching from quantity to a new, superior quality.

Our survey aims at specifically pointing out a number of problems which the Tirgoviste Combine has been facing for a long period. The resolution of these problems would help to improve activity and better meet the high-grade metal needs of our economy.

Deficiencies in Cooperative Chain

In 1978, on an all-combine level, deliveries to user units were exceeded 1 percent. Nevertheless, economic contracts were not implemented in a proportion of more than 10 percent, as a result of implementation of the marketable production plan only in a proportion of 91.89 percent. Because of failure to meet the contractual provisions on schedule and on a full basis, in 1978 the combine paid more than 10 million lei in penalties. The situation has been about the same in the first 2 months of this year.

Undoubtedly, these nonfulfillments stem from some deficiencies which are specific to the combine and we shall go back to them. But nonfulfillment of the physical plan assignments and, thereby, failure to implement some economic contracts, are largely explained by the deficiencies which are found in the operation of the cooperative system. The Tirgoviste Combine is constantly faced with difficulties created by some collaborator units and these difficulties have an adverse impact on the combine's relations with the users of special steel products. For instance, during the 1 January-15 March 1979 period the following units fell behind:

- a. Galati Iron and Steel Combine, with 6,673 tons of dynamo strip steel;
- b. Resita Iron and Steel Combine, with 23,078 tons of ingot steel;
- c. Cimpia Turzii Metallurgical Combine, with 5,000 tons of ingot steel, and so on.

Failure of suppliers (all are units under the Ministry of the Metallurgical Industry) to implement economic contracts largely resulted in nonfulfillment of the physical plan for some sections at the Tirgoviste Combine, and this entailed nonfulfillments for some products at its user units -- wire and wire product enterprises in Buzau, Cimpia Turzii, Braila, and Beclean, a number of units in the electrical engineering industry, the industry making tools, arcs, ball bearings, and other items. Consequently, there were chain ramifications, with adverse effects in a number of units, which were and still are in the situation of suffering as a result of the deficiencies in some supplier units that did not fulfill the contract provisions on schedule.

However, for the purpose of providing a clearer image of the real situation we must also take into consideration the manner in which the plan assignments were allotted by the ministry involved. The examination of the causes which resulted in the above-mentioned suppliers' not fulfilling their contract obligations indicated the following:

1. The Galati Iron and Steel Combine was supposed to arrange for the production of and turn out the siliceous steel strip for transformers in 1978. Because the task was not achieved it also figured in the 1979 plan. Hence, the Tirgoviste Combine had planned to process special steel from Galati in sheet, which it was supposed to deliver to third parties, beginning in February 1979. But how could the Tirgoviste Combine process the steel involved as long as an arrangement for the production of this item had not been made? Now, when the demand (and criticisms) have increased, the ministry involved determines that the problem can no longer be resolved by its own units and suggests the importation of the amounts planned.

However, we must specify that the Ministry of the Metallurgical Industry purchased the license for the production of special steel for transformers 10 years ago! But the arrangement for the production of the new brand of steel was procrastinated by the Galati Combine. In 1977 and last year the investments planned for the new product were not realized and the situation is unchanged in the period which has gone by in 1979.

Undoubtedly, the problem will be ultimately resolved in a way. But the consequences remain. On the one hand, for many years the economy did not benefit from a product in demand, for whose production large amounts of money were spent; on the other hand, the collectives of some units were not penalized for not having fully implemented the physical plan. Why was not prompt action taken to best possibly resolve this problem?

2. Resita Iron and Steel Combine's failure to deliver ingot steel is justified by the need for meeting its own requirements, as a result of the completion of the slabbing mill this year. Nevertheless, the Tirgoviste Combine was supposed to receive an allotment of steel ingot from Resita! The ministry must reexamine the matter so that the needs of the Tirgoviste Combine may be met fully and smoothly. Moreover, the transportation problem ought to be resolved, because part of the metal could have been delivered if the Romanian Railroads had provided the trucks planned (for instance, in January, during 2 weeks, no truck was provided to the Resita Iron and Steel Combine). As for the Cimpia Turzii Metallurgical Combine's failure to supply the same product, this is due to the delay in the start-up of the 100-ton electric furnace and to the poor quality in the execution of this furnace that involves serious operational deficiencies.

Some problems of the Tirgoviste Combine with regard to technical-material supplies result from nondelivery of the contracted-for refractory bricks by the enterprises of Cristian, Brasov Rasarit-ul, Pleasa-Prahova, and the Alba-Iulia Refractory Material Enterprise, that fell behind last year and in 1979 in terms of tens of tons.

What Is Level of Utilization Index

More careful utilization of metal and greater efficiency involve broad prospects for the better implementation of the plan assignments and for the meeting of economic needs. The table below reflects the evolution of this index.

Dynamics of Utilization of One Tcn of Ingot			t/t%
1976	1977	1978	1979 (plan)
74.000	76.45	77.92	82.40

Although the utilization index rose every year, the level attained still is far from existing potentialities and plan assignments. In 1978, for some items (metal in charges, casting plant, graphite electrodes, and so forth) a significant drop in relative consumption was achieved. However, for ingot steel and siliceous strip, the normed consumption rates were exceeded by about 94,000 tons of metal because of failure to follow technological specifications. Consequently, in specific periods, there were exceedings in terms of time in working the heat, inadequate rolled product working (resulting in large amounts of waste ends and strips), irrational consumption of ferroalloys, greater quantities of rejects, and so forth.

For the purpose of doing away with these deficiencies, measures were taken this year (redesigning of the casting machinery, switch from the conventional mold with detachable head to the monoblock mold, sensible adjustment of semifabricated products, and so on). But these measures must be implemented on a day-to-day basis in order for them to actually become factors of efficient action in the area of best utilization of proper metal in the ingot. These procedures alone can result in obtaining more than 30,000 t of special steel in excess this year.

Furthermore, measures are needed for upgrading the cadre training level, for prompt and effective intervention by experts at key points of production, for sensible operation and maintenance of facilities. In regard to this last-mentioned issue suffice it to point out that unplanned interruptions in the operation of machines (due to irrational operation, uneven provision with raw materials, poor quality allotments, and shortage of spare parts) in 1978 resulted in a production nonfulfillment valued at more than 260 million lei.

A positive factor in implementing the physical plan would involve the earliest possible attainment of planned parameters for basic facilities and sectors (the schedules were long exceeded) and also meeting the schedules for completion of new units (steel furnaces, rolling mills, and so on). Significant lags exist in both cases and this has resulted in failure to turn out large amounts of ingot metal, rolled products, and forged blocks and in failure to add new steel brands to the production range.

The sensible use of metal on the level of economic needs also involves provision of this item in fixed lengths. For the purpose of encouraging the maker to supply metal in fixed or multiple lengths, provisions were made for a rise of 4.5 percent in the delivery price. With the Tirgoviste Combine, however, this rise does not cover the value of waste ends that result from cutting. For some kind of balancing the situation, the maker switched to the system of compelling the customers to accept that 5 percent

of the total amount of metal which they receive involve rolled metal ends. But this system does not resolve the essential problem. In our view, on the one hand, approaches must be found to using the ends so that they may really meet the actual needs of user units, and, on the other hand, the customers ought to give up the procedure of asking only for rolled metal in fixed or multiple lengths when, by the nature of production, they could also use ends. For instance, the Arad Railroad Truck Enterprise requests for arcs some UIC 827 steels in fixed lengths and subsequently brings them to short lengths. Why is it that in this situation the enterprise involved does not acquire rolled metal in production lengths? On the one hand, the enterprise would benefit by nonpayment of the 4.5 percent tax on fixed lengths, and, on the other hand, advantages would be created for the customer by avoiding the appearance of ends.

The problem must be better examined so that approaches may be found which avoid recycling useful metal which, at combine level, amounts to tens of thousands of tons annually.

The situation pointed out is not characteristic of the Tirgoviste Combine alone. It brings out the existence of deficiencies also in other metallurgical units in significant areas such as: implementing cooperative programs between metallurgical units, use of techniques which would permit better utilization of metal during ingot-rolled metal processing, on-schedule completion of new production facilities, arrangement for the production of new steel brands, and so forth. Unfortunately, instead of closely examining each problem for basic resolutions, often there are ad-hoc approaches, with scores of experts and executives from various departments in enterprises, centrals, and the ministry almost totally limiting themselves to control work.

In light of the existing deficiencies and of the broad resources of metallurgical units to better meet the country's metal needs, we submit the following matters to the ministry for study and pondering:

1. Reexamination of cooperative programs between enterprises so that allotments may have an actual basis and permit on-schedule meeting of contractual obligations; also, better synchronization in supplying semifabricated products, for the purpose of avoiding idle time and rushes in production;
2. Rapid introduction and expanded use of advanced techniques which would permit attainment of the percentage of 85 percent in turning out appropriate metal from one ton of steel ingot. We specify that in the entire ministry, last year alone, as a result of failure to attain the planned utilization index involved,

the economy was deprived of an amount of more than 500,000 tons of metal;

3. Supplementation of the balance of reserves in terms of steel ingot in all units and on a ministry level so that reserves may exist not only on paper but in reality as well, respectively for 30 days, as specified in plan assignments;
4. In light of the higher and higher standard of metallurgical techniques, the prospect of training cadres for the new facilities over a longer period, respectively 1 year, in specialized units, versus only 3 months now, should be studied. This approach would help to avoid deficiencies in the training of some cadres and would result in the more rational operation and better utilization of machines and installations;
5. Taking of the required measures for the implementation of the system of material incentives in raising the qualitative standard of iron and steel products, a system which actually exists but is not implemented;
6. Prompt quantitative and qualitative supplies in terms of spare parts. To this end, the spare-part making workshops or sections in metallurgical enterprises should be streamlined for groups of highly sophisticated spare parts; under cooperative programs the enterprises should develop interchanges so that most of the spare parts should be turned out domestically and imports avoided.

It is in the interest of each enterprise and of all the metallurgical branch to make full use of the conditions created and the internal reserves available in order to turn out growing amounts of special steels at the lowest possible cost. Moreover, turning out greater amounts of high-quality metal would result in prompter and better meeting economic needs and providing user units with optimal conditions for smooth and highly effective implementation of plan assignments.

11710
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INDUSTRIAL USE OF COKE SUBSTITUTE URGED

Bucharest REVISTA ECONOMICA in Romanian No 12, 23 Mar 79 pp 13-14

[Article by Cristian Popescu]

[Text] The need for best use and saving of raw materials and supplies and of utilizing secondary resources in the production flow is an essential factor of efficient and competitive economic activity. Moreover, a priority factor involves rationalization of consumption in terms of imported materials, as it is known that for each ton of imported substance the economy makes efforts in achieving an equivalent export. In his address to the general assembly of working people of the 23 August Enterprise Nicolae Ceaușescu pointed out: "We are required to accomplish broad exportation in order to cope with the importation of raw materials, beginning with iron ore, coke, oil and other items, including cotton, for consumer goods."

In accomplishing these tasks each working person must have a total involvement and broad creative spirit. Precisely therefore it is understandable why a Romanian invention -- "fluorom" -- whose economic effects materialize in lesser coke imports, higher productivity, and superior use of some by-products, not even after years and years is applied on a large scale in the economy.

Product Involves Sizable Economic Advantages

Fluorom is a product which is obtained as a result of high-grade use of some secondary products: calcined dolomite dust from iron and steel combines, sludge from processes in chlorosodium combines, and so on. An invention achieved at the Institute of Metallurgical Research, fluorom is used as an activating material in the process of melting pig iron in cupolas -- the vertical furnaces in which the metal is heated together with the fuel and the auxiliary substances for melting and subsequent mold casting.

Tests conducted as early as in 1972 in more than ten enterprises -- in the machine building and metallurgical industries* -- indicated that the utilization of the new product has significant economic effects: in the first place, reduction of the amount of foundry coke on the average by 20 kg per ton of hot iron; halving of lime consumption; a rise between 10 and 15 percent in machinery productivity; concomitant improvement in the qualitative parameters of the iron turned out. At that time it was already considered -- and this statement has retained its value -- that fluorom practically has no "contraindications," with all technical and economic arguments advocating large-scale economic use. Nevertheless, the quantities in which this product has been utilized by enterprises that use cupola furnaces in the production process have proved to be rather... pharmaceutical than industrial.

A calculation clearly shows what loss this situation has produced on the level of the national economy. Considering that fluorom could have been used on an overall scale as far back as 6-7 years ago and that annually 20,000 tons of coke can be economized, it follows that throughout this period it was possible to save an amount of coke equivalent to more than half of the amount of foundry coke which is annually utilized in the economy. Equally important is the reduction of lime consumption. According to experts, the utilization of fluorom results in saving 30-40 kg of lime for each ton of hot iron. Lime? Insignificant cost, some persons in the economy still think, is obtained with minimal expenses and occurs in huge amounts. Of course, 5 bani per kg is a small amount, though on an annual level it amounts to about 2 million lei. But we could avoid a significant economic and financial effort involved in transportation, storage, loading-unloading, and so forth. Furthermore, it is significant that in this manner, by using fluorom, we save a major wealth of the country which can now or later be put to better use.

Moreover, if we take into account the greater productivity which results from using fluorom, considering the lower limit of 10 percent and relating this figure to that of almost 1 million which represents the annual volume of cast iron obtained in cupola furnaces, it follows that we can obtain a supplemental output of cast iron of about 100,000 t. We notice, in addition to the advantages offered by this supplemental output obtained without any extra material effort, also the decrease in the cost per ton of cast iron turned out and the rise in the utilization index of the equipment.

* By and large, experts assess at several hundred the number of cupola furnaces -- of varied capacity and efficiency -- which are now operating in the economy, with the output of cast iron obtained by this procedure being fairly significant.

Instead of Firm Action: Unsubstantial Arguments, Memos Without Finality

What specifically generated the delay in using fluorom on an overall scale and consequently this loss? Let us survey the few files which contain the history of this invention... A notation indicates that some enterprises did not utilize fluorom because they lacked appropriate storage space; others refused to accept the new product because its use required minor adjustments in existing equipment. The most paradoxical argument economically, however, figures in a memorandum forwarded by the Central Institute of Metallurgical Research to a higher body. It pinpoints the fact that the enterprises lacked interest in using fluorom simply because they had been provided with the required amount of coke for the year involved (!!!). Moreover, it must be emphasized that some fluctuations in regard to the quality of fluorom could also have generated refusals from user units and some reservations in terms of utilizing this product. But this occurred in the context in which lack of orders was a hamper in the process of extending and upgrading fluorom production.

Hence, it is clear that a major obstacle to the overall use of fluorom involved lack of decision-making on part of an appropriate body which would help to monitor and coordinate the utilization of the invention in all units which are provided with cupola furnaces (these enterprises belong mostly to the Ministry of the Machine Building Industry). The Ministry of Technical and Material Supplies is not exempt from responsibility. By its very statute of operation this body is required to substantiate the procedures for cutting down materials consumption rates and for achieving savings and consequently was anyway required to monitor the introduction of this new item in production, an item capable of ensuring coke savings which amount to tens of thousands of tons.

Facts prove that the efforts for the overall use of fluorom made by the research institute, by the inventors, specifically -- efforts which were not limited to granting technical assistance to the enterprises which utilized fluorom but involved programs for popularization and even provision of raw materials for the manufacturing unit -- did not find appropriate response even at the level of the leadership of the Ministry of the Metallurgical Industry whose subordinate the institute is. Consequently, a note issued by OSIM /State Office for Inventions and Trademarks/ which informs the leadership of the institute that the Sibiu Record Enterprise, producer of fluorom, intends to withdraw this product from the plan because of lack of orders, confirms a paradoxical reality: since 1974 fluorom was no longer turned out...

Nothing happened for several years. But in 1976, based on a detailed survey, the Coordination Council for Streamlining, Specialization and Cooperation in the branches of the machine

building and metallurgical industries adopted a decision on the rational use of energy and reduction of coke consumption in iron foundries. Item 4 of the above document contains the following: "By 31 December 1976 the Ministry of the Metallurgical Industry and the Ministry of the Machine Building Industry shall conclude their tests on cast iron smelting in cupola furnaces with the use of the complex fusing agent "Fluorom" (....) and by 15 February 1977 shall submit to the Coordination Council the results of the tests for the purpose of using the procedure on an overall scale." Consequently, definite dates and specific tasks.

Let us see how this decision was implemented. In August 1977, hence 5 months later than specified, the product was approved at the Sibiu Independenta Enterprise as a result of tests which yielded very good results (beginning in the first month of 1977 production of fluorom was resumed, this time at the Slatina Oltul Enterprise). One might have expected that specific projects would be undertaken for the overall use of the procedure and this would have actually conformed with the decision taken by the Coordination Council.

However, the evidence of orders for fluorom at the manufacturing unit reveals quite a different situation: in 1977 the orders accounted for 900 t, in 1978, 670 t, and this year versus the 6,000 t which the above enterprise plans to produce firm orders exist for only 680 t (!!) placed by two enterprises.

Effects of Procrastination: Major Potential Savings Prevented From Facilitating the Coke Balance

For the purpose of clarifying this situation we interviewed the director of the Coordination Council, G. Munteanu. But what we learned did not provide clarifications on this matter. On our request a forgotten project which was supposed to have been completed 2 years ago was brought to the fore. This period must not be considered as a simple delay. Failure to use fluorom in these 2 years has far ampler economic ramifications. Another item of the above-mentioned decision of the Coordination Council provided for the development of technical-economic surveys on the relevance of using, in new or expanding foundries -- for the smelting sectors -- either cupola furnaces whose disadvantage involves the obtaining of coke from import, or electric furnaces which, however, use a large amount of electrical energy. Hence, during the last 2 years, only electric furnaces were planned for new foundries also because of lack of knowledge on the economic effects of fluorom.

But for each ton of electric pig iron 600 kWh are used. Moreover, reduction of power consumption is a paramount economic requirement. It is such an important factor that, in the words of party secretary general, it produces changes in the structure of industrial production, orientation of efforts toward development

of technologies, branches, and sectors which are small users of energy. However, if attention was paid to coke savings which result from the use of fluorom -- about 20,000 t annually -- we would have avoided the consumption of electric energy required by the turning out of the same cast iron production in electric furnaces. A calculation indicates that in the context of utilization of fluorom and obtaining of significant coke savings, it was possible to obtain in cupola furnaces the cast iron output of about 25 electric furnaces with a capacity of 3 tons. The 160,000 tons of cast iron obtained by the above procedure would have also ensured the saving of about 96 million kWh. Furthermore, in the context of 10-15 percent productivity rises, the same facilities could have provided at least 100,000 tons of cast iron annually and this would have resulted in sizable savings in terms of investment projects.

Director G. Munteanu stated: "We shall evaluate the relevance of using cupola furnaces on a long-range basis. We shall determine the necessary amount of fluorom in the overall economy. We shall streamline an enterprise for the production of this item. We shall establish a balance coordinating factor for all the economy, and so forth (it seems that a basic material in the production of fluorom -- dolomite dust -- is no longer obtained, but we shall enquire and find a solution to this problem as well)."

Undoubtedly, there are practical and effective ways which needed to be explored and utilized years ago. Because the need for implementation has for a long while now been very acute and because in the area of overall use of fluorom the expeditiousness of the undertakers has proved, at least until now, to be debatable, we venture to formulate the answer to some of these "unknown" questions, based on the discussions held with responsible parties of the Central Institute of Metallurgical Research and the Technological Research and Design Institute for Hot Sectors. The necessary amount of fluorom for the entire economy is estimated at about 30,000 t annually. As for the use of cupola furnaces, it has been found that on a world scale this type of furnace, which uses foundry coke, is prevalent. The production capacity of the Slatina Oltul Enterprise can provide the necessary amount of fluorom, but there is a lack of orders. In regard to calcined dolomite dust, it is true that the major supplier, the Hunedoara Iron and Steel Combine, by changing technology, practically eliminated this secondary product. However, experts estimate that there are enough avenues to ensure, in a very cost-effective context, this important raw material for the production of fluorom. There are many easily minable deposits; moreover, a source which can be used with minimum economic effort involves the Pentis waste dump -- now covered with slag -- which contains about 30,000 t, an amount which can provide the substance required for the production of fluorom for 2 years, and so forth.

Hence, it is clear that the development of a survey which should underlie the overall use of the invention does not appear as a matter involving a long period, all the more so because the more difficult stage of testing and approval of fluorom has long been completed. However, the responsible parties -- enterprises, centrals, ministries, the State Planning Committee, MAGF, and other bodies -- must display at least minimum interest in this matter. At any rate, the introduction of the new product must be ensured on the basis of a formula determined for each individual cupola furnace, as a mandatory consumption standard in producing foundry iron.

A major conclusion which derives from the epic of fluorom is that the new does not assert itself and disseminate automatically in the economy, that joint efforts and responsibilities are needed -- throughout the process -- to overcome inertia, red tape, and scant concern with capitalizing on the most valuable wealth of our nation -- the creativity of the Romanian technical mind, which materializes in saving major material assets. The same as there is concern with eliminating and preventing the phenomena which directly result in misappropriating or wasting assets and resources, for which responsibility is immanent, strict responsibility must also operate in regard to prompt neutralization of the means that can bring substantial economic advantages.

11710
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OFFICIAL INTERVIEWED ON ECONOMIC STATUS OF VOJVODINA

Belgrade RAD in Serbo-Croatian 15 Jun 79 pp 4-5

[Interview with Nikola Kmezic, President of the Executive Council of Socialist Autonomous Republic of Vojvodina, date and place not given]

[Text] What qualitatively new is happening in the economy of Vojvodina, what major new endeavors are being attempted in restructuring industry, how is the current intermediate plan (1976-1980) being implemented, and how is the future direction of development being planned for the "granary of Yugoslavia?" Nikola Kmezic, president of the Vojvodina Executive Council, answers these questions for the readers of RAD.

[Question] The production of feed in Vojvodina is the focus of attention in the current intermediate plan. What is covered by the 5-percent planned increase in agricultural production by 1980?

[Answer] It is true that food production is in the focus of attention as a direction of development, but it must be stressed that that production is only one of four development priorities in Vojvodina which are to receive equal treatment in the five-year plan.

Fertile land, along with water, petroleum, natural gas and raw materials for construction, is one of the natural resources of this region, and therefore it is natural that there is an interest in seeing the land resource utilized as fully as possible. In contrast to the preceding period, this five-year plan as well as the long-term developmental concept for Vojvodina places emphasis on the utilization of that resource primarily as the basis for developing numerous phases of processing and final preparation of agricultural raw materials in food processing, chemicals, pharmaceuticals, and other branches of industry.

From that viewpoint, the rate of increase of agricultural production in itself says little, although an annual 5-percent increase on the average means more

than a quarter total increase in physical quantities produced (more precisely, 27.7 percent). A breakdown of this overall growth rate shows, first, that production in the social sector will increase at a markedly faster rate (8 percent) compared to the rate in the private sector (3 percent). Furthermore, this indicates that the development of production is to go in the direction of intensification, which among other things means the stabilization of current wheat production and increases in corn production, in both cases on reduced total acreage.

In the first 3 years of the period, the goals in Vojvodina have on the average been achieved, or as in the case of wheat production planned for 1980, surpassed by 20 percent. Corn production for 1980 is practically on target, amounting to 96.4 percent of the planned total. The planned rate in overall terms, however, means a markedly greater increase in sugar beet production (or sugar production), and increases in sunflowers, soya, and edible oils, followed by vegetables, fruits and grapes. These are the crops that represent the basis for intensified production of human foods.

More rapid development is also anticipated for livestock production, as one factor in the intensification of agricultural production. This presupposes not only increases in the total number of livestock, but also greater production per head of livestock on the basis of the introduction of more modern technology, and improvement of breed composition and production qualities of the livestock.

In the light of these planned suppositions that mean new quality, and not solely the anticipated growth rate, the trend in the development of agricultural production must be evaluated as part of the agroindustrial complex, modern food production, and changes in the economic structure of the province.

[Question] Do the significant investments in the chemical industry and other branches mean that efforts are being made toward a fundamental restructuring of Vojvodina's economic production?

[Answer] As I already stated, the five-year plan for the development of Vojvodina anticipated, along with the agroindustrial complex, three other areas of developmental priority. Among them, in the revolutionizing of production, first place goes to the chemical industry in the broadest sense of the word, including the entire chain from production of petroleum and natural gas through the petrochemical industry to basic and other chemical products.

The intermediate plan foresees that about one-quarter of the total investments will be made in this branch of industry, or about one-third of the investments to be made in industrial priorities.

The most important prerequisite for the development of the chemical industry is the development of the domestic raw material base of petroleum and gas. The construction of the Yugoslav oil pipeline, which is to be completed this year, will ease the importation of the petroleum shortfall.

The growth in production of the chemical industry, at the planned rate of about 13 percent, is the greatest when compared to all other branches of industry, and in 5 years that growth rate will mean a total production increase of 85 percent. If you keep in mind that the construction and initial operation of some chemical and petrochemical facilities will be carried over into the next five-year plan period, then you can judge the degree to which this production marks a change in the economic structure of the province.

It is a matter of new, previously unknown products, not only in the chemical industry of Vojvodina but in the Yugoslav chemical industry. Here, in effect, Vojvodina is following world trends in industrial development, in which chemicals along with machine building and electronics--and these two branches also have priority in Vojvodina--have taken the forefront on the scale of development of separate industrial branches.

[Question] Electrical energy is an essential prerequisite for progress, and the loan has been successfully subscribed. What will be the effects for energy development?

[Answer] For the implementation of the intermediate plan for development of Vojvodina, particularly for more intensive development and changes in the economic structure, the basis prerequisite is a sufficient quantity of high-quality energy, primarily electrical and then fuel energy.

Vojvodina is poor in energy, and especially in electrical energy. There has also been a significant growth in the consumption of electrical energy. In the previous 10 years that growth amounted to a rate of more than 15 percent annually, while in the 1976-1980 it is expected to be about 11 percent per year. Significant industrial capacities, particularly in the chemical and food-processing industries, require greater amounts of industrial steam and energy in general.

Starting with industrial needs for electrical energy and industrial steam, and needs for city heating and hot water, the determination developed in Vojvodina that a portion of increased needs for electrical energy must be provided from local sources. Naturally, the remaining and larger part will continue to be provided by the electrical energy system of Serbia. This determination has as its goal to assure adequate combined production of electrical energy and industrial steam, and heating for the urban population. Of the necessary sources of electrical energy needed to cover increased consumption, for which 910 MW are required by 1980, construction or preparations for construction have begun in Vojvodina totaling 235 MW in thermal electric power plants; the first phase totals 135 MW.

For the remaining portion of the capital for investments, a loan of 1.5 billion dinars has been solicited, and the response of Vojvodina's citizens has surpassed expectations. More than 2 billion dinars have been pledged for the loan.

I think that it is particularly valuable to mention one other fact which will improve the energy situation in Vojvodina. A lignite deposit has been discovered in the southern Banat. It would be premature to make any broad statement about that discovery, for the exploitable reserves must yet be confirmed and a plan for mining of the deposit prepared. Proved deposits and estimates indicate that there is sufficient coal for a medium-sized thermal electric power plant.

[Question] Oil is also energy, and its production and processing as "liquid gold" is given a special place in the plan for Vojvodina.

[Answer] Understandably, petroleum has an exceptional place in the Vojvodina energy balance, as does natural gas.

Petroleum and natural gas are also significant for the development of the basic petrochemical industry in Vojvodina, which will contribute to the realization of one of the primary goals of economic development in the province, the change in the economic structure, which is to be initiated with local raw material potential.

Petroleum and its derivatives obtained by refining have taken a dominant place in this intermediate plan in the development of the petrochemical industry. Construction is completed or nearly finished on an entire complex of major installations based on ethylene and propylene chemistry, the raw material base for the processing industry in Vojvodina and elsewhere. That means that petroleum and petroleum derivatives provide the basis for a multiple-branch, varied industry of plastic products and plastic masses.

That, however, is not the end of the story. Secondary refining of petroleum also provides a whole series of very valuable derivatives for a new group of petrochemicals, including aromatic chemicals, rubber production, and other products.

For some years chemical fertilizer production at the HIP plant in Pancevo has been based on natural gas as a raw material. The present intermediate plan brings a new breakthrough in the utilization of natural gas. Construction is under way on a metals complex that will provide new possibilities for processing and improving the domestic production of numerous industrial branches. The city of Subotica is becoming increasingly important in the petrochemical complex and in the production of artificial fertilizers that are essential for Vojvodina as a major grain producer.

[Question] There are plans for 150,000 new jobs. How much of that total has been realized? What trends are apparent in labor productivity (where there is a planned 4-percent increase) and in the standard of living (where a 6-percent improvement is planned)?

[Answer] The absolute increase in the number of employed in the public sector has been developing at the planned rate of 3.5 percent, which means that the total will grow from 470,000 in 1975 to 558,000 in 1980, or by about 88,000. The remainder of the 150,000, or about 62,000 new jobs, is tied to natural attrition of employed persons through such things as retirement.

These numbers by themselves do not say much. If, however, you keep in mind that the natural growth of population is maintaining a 2.4-percent rate, meaning that in 5 years the number of inhabitants will increase by about 47,000, then we see a relationship that is much more meaningful.

In the past 3 years, the number of employed persons has increased by 51,000, which corresponds very closely to the plan, and in that respect we can be satisfied.

A cause for some concern can be found in the lag in productivity. During the 3 years, a growth rate of 3.3 percent has been achieved in contrast to the planned 4.4-percent rate. The situation will certainly change noticeably with the beginning of operations at major new installations whose production will be based less on the labor force and more on modern, more productive technology. That does not, however, release us from the obligation to give greater general attention to the matter of labor productivity, as well as to all elements of quality economic operations.

Among other things, that will make it possible to achieve the planned growth rate for the standard of living of 6.2 percent. The growth rate achieved in the past 3 years amounts to 5.6 percent, which is markedly below the planned rate. When we look at labor productivity, however, it is clear that we must devote much more attention to that factor in the future.

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YUGOSLAV TRADE WITH DEVELOPING COUNTRIES SURVEYED

Sarajevo PREGLED in Serbo-Croatian No 4, Apr 79 pp 473-483

[Excerpt of unsigned article]

[Excerpt] 1. Yugoslavia's Visible Trade With the Developing Countries

With some of the developing countries Yugoslavia has a very long tradition in visible trade. In the mid-fifties, at a time when great changes took place in the geographic orientation of Yugoslavia's foreign trade, these countries took on much more importance. In 1954 the developing countries took up one-fifth of our exports, and 15 percent of our imports came from those countries. In the light of the fact that the period of "normalization" of the area pattern of Yugoslavia's foreign trade, after economic relations were again established with the socialist countries of Europe (broken off by the Cominform blockade), lasted until the beginning of the sixties, this share of the developing countries in our foreign trade ought not to be taken as a basis for comparison. The point deserves particular emphasis because at that time the basic elements of the strategy of Yugoslavia's economic relations with those countries had not yet been adequately shaped. Also, only after the Belgrade conference (1961) did the nonalignment movement itself furnish elements for establishing a more definite definition of membership among the nonaligned, and it was only the first session of UNCTAD (1964) which marked the formation of the "group of 77 developing countries," which (with a significantly expanded number of countries in it) represents even today the accepted Yugoslav definition of the group of developing countries. These arguments encourage the judgment that an analysis of the development of Yugoslavia's visible trade with the developing countries would have to be conducted with the help of time series of data covering the period 1961-1978.

Volume of Visible Trade

Yugoslavia's visible trade with the developing countries, which in 1961 amounted to \$165 million, is now approaching a volume of \$2.4 billion. In that period Yugoslav exports to the developing countries have increased 8.8-fold, while imports from those countries are 13-fold greater than their

initial value (in current prices). Today 87 developing countries are involved in that trade.

The volume of visible trade with the developing countries is not sufficiently defined by the figures given. In other words, in the period under review there was rapid growth in Yugoslavia's foreign trade as a whole, in world trade, and (in certain periods) also in the foreign trade of the developing countries. In that context the volume of visible trade with the developing countries should be evaluated in terms of its relative size, that is, its share in Yugoslavia's total foreign trade. This kind of analysis will show that over the last 17 years there have been sizable fluctuations, rises and falls, in the volume of visible trade with the developing countries.

Figures of this kind show that following the normalization of Yugoslavia's economic relations with the East European socialist countries the share of the developing countries in its foreign trade began to drop. The relatively high share of these countries in absorption of Yugoslav exports was maintained until 1962 (when it was 22.3 percent), and then beginning in 1963 it declined almost uninterruptedly until 1972 (7.0 percent). Only in 1973 was there a turning point in this regard. On the import side the intensity of these changes was not so pronounced. The stagnation lasted from 1965 to 1973.

Table 1. Volume of Yugoslavia's Visible Trade With the Developing Countries, in millions of dollars (current prices)

1	Exports		Imports		Trade Balance
	Value	Share in Yugoslavia's Total Exports (%)	Value	Share in Yugoslavia's Total Imports (%)	
2	3	4	5	6	
1961-1965 (annual average)	136.2	16.9	137.4	12.6	- 1.2
1966-1970 (annual average)	166.7	12.1	203.1	10.0	- 36.4
1971-1975 (annual average)	351.8	11.9	703.3	13.4	-351.5
1971	205.4	9.1	325.4	10.0	-120.0
1972	157.4	7.0	311.1	9.6	-153.7
1973	279.0	9.8	562.1	12.5	-283.1
1974	430.8	11.3	1,206.5	16.0	-775.7
1975	686.5	16.9	1,111.3	14.4	-424.8
1976	753.7	15.4	1,054.2	14.3	-300.5
1977	985.7	18.7	1,328.2	13.8	-342.5
1978	1,033.3	18.2	1,335.8	13.4	-302.5

- Sources:
1. For the 1964 period: "Yugoslavia's Economic Cooperation With Developing Countries," Federal Secretariat for Information, Belgrade, 1974, p 70.
 2. For the 1965-1975 period: "Statistika robne razmene Jugoslavije sa zemljama u razvoju" [Statistics on Yugoslavia's Visible Trade With the Developing Countries], Center for Study of Cooperation With the Developing Countries, Ljubljana, 1976, p 9.
 3. For 1976-1978: "Saopštenja" [Reports], Federal Bureau of Statistics.

Even if we exclude the extreme values, which are the result of large annual fluctuations (particularly in exports), it is still valid to say that over most of this period the volume of Yugoslavia's visible trade with the developing countries did not experience a satisfactory growth. This volume was not in line with real possibilities, nor the declared wishes and objective long-range interests of Yugoslav society.

The absolute value of exports in the 1963-1972 period has held close to the volume attained back in 1962. Only in 1974 did exports once and for all surpass the average values from the 5-year periods 1961-1965 and 1966-1970. The share of exports to the developing countries in total Yugoslav exports, however, did not reach the level of 10 years before even in the 1971-1975 period. This share in the 1961-1965 period (16.9 percent) was attained again only in 1975, and has been confirmed in subsequent years.

On the import side the drop in the share of the developing countries in the 1966-1970 period was less steep than for exports, and it was also made up for a bit faster. External factors such as the rise in the price of petroleum and other raw materials contributed significantly to this.

In general export and import prices showed a calm behavior in the decade before 1972, so that by far the largest share of the growth in the volume of visible trade with the developing countries was the result of an increase in its visible volume. Since 1974 prices in world and Yugoslav foreign trade have been rising sharply and go a long way toward explaining the large increase in the nominal value of foreign trade. The turning point in Yugoslavia's visible trade with the developing countries in 1973 still did not depend on these price movements. Their influence was fully manifested only in 1974 and subsequent years.

Yugoslav statistics on foreign trade does not furnish index numbers for the physical volume of trade with the developing countries, nor do there exist the relevant models of import and export price indices (in trade with the developing countries) which might be used as deflators so that the value of this trade could be shown in constant prices. The possibility of a realistic assessment of the volume of exports and imports attained is certainly diminished thereby. In this situation the most reliable yardstick is still the share of the developing countries in Yugoslavia's foreign trade. This

reflects the relative movement of the volume of foreign trade with the developing countries.¹

To put it crudely, the spectacular increase in the value of Yugoslavia's visible trade with the developing countries (following a long stagnation) merely attained a relative volume of trade which is at the level of the average for the 1961-1965 period. Is that volume of trade adequate--is it as far as we can go? Taking everything into account--no.

The share of the developing countries in Yugoslav exports, which is about 18 percent, is considerably lower than the share of those countries in world imports, which in recent years has been at a level of 22-23 percent. Similarly, whereas the developing countries account for about 24 percent of world exports, they have a share of 13-14 percent in Yugoslav imports. This share of the developing countries in Yugoslavia's foreign trade is also lagging behind the share of mutual trade in the total visible trade of the developing countries (22-23 percent). These facts can only partly be explained by Yugoslavia's geopolitical position in Europe, by a long tradition, by import dependence, and by technological orientation toward the advanced European countries. The greater importance of mutual trade for the developing countries on the average than for Yugoslavia is also partly explained by the fact that many of these countries are members of regional integrated groupings which offer special incentives for interregional [sic--translator's note] trade.

The developing countries have a share close to 29 percent in absorbing the exports of the most important OECD countries, which is 1.7-fold greater than in Yugoslavia's case. Even this fact can be explained only partly by the presence of the colonial powers for more than a century on the markets of the developing countries and by the financial and technical dominance which they exercise, the transnational corporation serving them as one method. At a time when all these explanations are progressively losing strength it is justified to pose the question: Shouldn't the share of the developing countries in Yugoslavia's foreign trade be at least at the level of the share of those countries in world trade, and shouldn't it be increasing at the growth rate of the overall mutual visible trade of the developing countries?

The Dynamics of Yugoslavia's Visible Trade With the Developing Countries

Changes in the relative volume of Yugoslavia's visible trade with the developing countries are the end result of the varying dynamics of that trade and of total Yugoslav foreign trade from segment to segment of the 1961-1978 period.

If we retain the breakdown into periods used in the previous section, the changes in the growth rate of Yugoslavia's visible trade with the developing countries is as shown in Table 2.

Table 2. Comparative Dynamics of Yugoslavia's Visible Trade With the Developing Countries, average annual growth rates (on the basis of current prices)

Period	Exports			Imports	
	World	Yugoslav Total	Yugoslavia to Developing Countries	Yugoslav Total	From Developing Countries to Yugoslavia
1962-1965	8.2	17.6	16.6	8.9	19.9
1966-1970	11.1	9.0	1.8	17.3	12.0
1971-1976	21.5	19.4	27.6	17.0	24.1
1962-1976	14.3	15.4	15.6	14.9	18.8

Sources: Same as for Table 1. For world reports: UN, "Monthly Bulletin of Statistics," and "UN Yearbook of International Trade Statistics," 1967, pp 13-15.

It is obvious that Yugoslav exports to the developing countries have definitely been keeping pace with the dynamic movement of Yugoslavia's overall exports. When Yugoslavia's total exports were achieving high growth rates, exceeding the dynamics of world exports, exports to the developing countries increased at an equally rapid rate. The decline in the growth rate of total Yugoslav exports (below the growth rate of world exports) was accompanied by a drastic drop in the growth rate of exports to the developing countries. Toward the end of this period the recovery of exports to the developing countries was slightly faster (a growth rate higher than the world rate) than in the case of Yugoslav exports as a whole (which still had not attained the growth rate of world exports).

Imports from the developing countries, however, have tended more to keep pace with the dynamics of our exports to that region than with the growth of total Yugoslav imports. Whereas there have been no sizable fluctuations in the growth of total Yugoslav imports, the growth rate of imports from the developing countries slowed down appreciably in a period which approximately corresponds to the period of stagnation in Yugoslav exports to those countries.

The periods used in Table 2 divides this period into periods before and after the reform, and it indicates separately the years 1971-1976, in which (beginning with the major monetary crisis in 1971) numerous major changes were occurring in the world economy. This breakdown into periods is less suitable, however, for an analysis of Yugoslavia's visible trade with the developing countries, since it does not furnish a sufficiently precise definition of the alternating periods of expansion and stagnation.

More precise figures indicate that annual growth rates of Yugoslav exports were lagging behind those of world exports in the 1967-1974 period. Yugoslavia's share in world exports dropped from 0.67 percent in 1968 to 0.50

percent in 1974, and then at the end of 1976 comprised only 0.55 percent of world exports.

The period of relative stagnation of exports to the developing countries lasted from 1963 to 1972. Since the absolute value of exports to the developing countries is the same in 1962 and 1972, the average geometric growth rate was 0.0 percent. Though there were sizable fluctuations in the value of exports from year to year, on the average for this 11-year period it was \$162 million in current prices.² This encourages the judgment that its real value was dropping. The volume of Yugoslavia's imports from the developing countries tripled in that period in their nominal value, though an absolute decline was recorded in the 1965-1968 period.

The turning point in visible trade with the developing countries obviously becomes evident in 1973. There is also good reason to examine in comparative terms the exceptionally high growth rates of imports in Yugoslavia's trade with the developing countries in recent years.

Table 3. Comparative Dynamics of Visible Trade of the Principle World Regions With the Developing Countries, average annual growth rate (in current prices)

	<u>1973</u>	<u>1974</u>	<u>1975</u>
Advanced market economies			
Exports	37.9	54.3	21.6
Imports	46.1	103.9	- 7.3
Centrally planned economies			
Exports	44.3	31.7	13.8
Imports	49.3	50.1	7.4
Developing countries			
Exports	48.5	102.9	2.3
Imports	48.5	102.9	2.3
Yugoslavia			
Exports	77.2	54.4	59.3
Imports	80.7	114.6	- 8.5

Source: "International Bank for Reconstruction and Development Annual Report 1976," op. cit., p 99, and the sources given previously.

The growth of Yugoslav exports following 1972 was exceptionally high even in terms of all types of comparisons which can be made on the basis of the figures given in Table 3. Their average annual growth rate for the 1973-1975 period was 63.3 percent, which exceeded both the growth rate of mutual trade of the developing countries (45.5 percent) and also the growth rate of exports of the advanced western and socialist countries to the developing countries.

The high growth rates of these segments of world visible trade and of world visible trade in its entirety in the seventies are in large part explained by the growth of prices in foreign trade and the declining value of the dollar. In the decade 1962-1972 most of the growth of the value of world trade consisted of a real growth in its physical volume (at an average annual rate of 9 percent), while the rise of prices (more accurately: of unit value) was 2-2.5 percent annually. In the years 1973, 1974, 1975 and 1976 the physical volume of world trade was growing at rates of 13.5, ..., 4.5 and 11.5 percent, respectively, while the rise of prices (in terms of a specially chosen sample) was 12.5, 4.0, 7.5 and 7.0 percent annually, respectively.³

If we follow the unit value of a specified number of the most important products involved in Yugoslavia's trade with the developing countries we arrive at the judgment that in 1973 the growth in the value of exports and imports was not significantly influenced by prices in foreign trade.⁴ In subsequent years Yugoslav exports to the developing countries were assisted by the general rise in the prices of industrial products (especially equipment) in world trade. The growth of import prices (petroleum, natural phosphate, tin and rubber) in 1974 contributed to the 2.15-fold increase in the value of Yugoslav imports from the developing countries, though an approximate computation showed that the physical volume of imports dropped 3 percent.⁵

The exceptional growth rate of visible trade with the developing countries in recent years has in a sense eliminated the consequences of this stagnation in the 1962-1972 period and created the basis for its further advance. Only since the end of 1976 can it be said that visible trade with the developing countries over the last 15 years has kept pace with the average growth rate of total Yugoslav exports (15.4 percent) and imports (15.6 percent). The same applies to the growth of Yugoslav visible trade relative to world visible trade. Trade with the developing countries should continue to increase faster than total Yugoslav foreign trade so that economic relations with those countries are brought into conformity with the significance which they have in the world economy and in order to bring about an increase in the share of mutual trade in the total visible trade of the developing countries.

The Pattern of Yugoslavia's Visible Trade With the Developing Countries

The pattern of world visible trade and of Yugoslav foreign trade is changing constantly. For that reason the pattern of Yugoslavia's visible trade with the developing countries should be examined in comparative terms.

Changes in the pattern of Yugoslavia's overall foreign trade and the specific nature of that trade in relations with the developing countries are obvious. Changes in the pattern of exports are considerably more striking than those on the import side. The pattern of exports to the developing countries is becoming increasingly similar to the pattern of overall Yugoslav exports. In 1961 Yugoslavia was still equally an exporter of primary

and industrial products. Even then, however, industrial products had a share of 76 percent in its exports to the developing countries. Though today Yugoslavia's exports to the developing countries are much more similar to the pattern of total exports, there is a smaller share of primary products and a higher share of industrial products, especially products of machinebuilding and the transportation equipment industry. The developing countries absorb more than one-third of total Yugoslav exports of this commodity group.

Changes in the pattern of Yugoslavia's overall imports and imports from the developing countries are much smaller, but the large difference between these two patterns has remained almost unchanged. Equipment and industrial products classified by material were the largest elements in the pattern of imports in 1964, and they remained so in 1975. Only imports of mineral fuels climbed to third place, which had been held by raw materials. By contrast with this pattern in total imports, the pattern of Yugoslavia's imports from the developing countries is diametrically the opposite. In 1964 primary products (commodity sector 0-4) represented 88.8 percent of imports from those countries, and the figure in 1975 was 85.4 percent. The two most important sectors in that pattern were still mineral fuels and raw materials, and only the ranking changed since 1964.

It is also obvious that the pattern of Yugoslavia's trade balance with the developing countries is that which is typical of industrial countries. Whereas in 1975 industrial products comprised 26 percent of total exports of the developing countries, these products represent less than 15 percent in Yugoslav imports from the developing countries.

For a long time Africa and Asia accounted for the major portion of Yugoslavia's visible trade with the developing countries. As time has passed their share in total Yugoslav exports has nevertheless dropped from 75 percent (in 1961) to 65.7 percent in 1975. Their share in imports has also dropped from 57 percent in 1961 to 46.4 percent in 1975.

The most significant change in the area pattern of imports from the developing countries occurred after 1973, when because of imports of crude petroleum the region of the Near and Middle East took first place. Because of the need to right the trade balance with the countries of that region as much as possible, its share in absorbing Yugoslav exports has also increased somewhat.

The geographic concentration of visible trade with the developing countries, which once was high, is gradually being moderated. Nevertheless, even in 1975 the first five countries (India, Iraq, Liberia, Libya and Egypt) absorbed 49 percent of Yugoslavia's exports to the developing countries. About 60 percent of all imports from the developing countries in 1975 came from 5 countries (Iraq, Brazil, Iran, Morocco and India).⁶

2. Other Forms of Yugoslavia's Economic Cooperation With the Developing Countries

Of the numerous contemporary forms of international economic relations Yugoslavia has only recently managed in its relations with the developing countries to develop investment cooperation, while it is still taking the initial steps in the other fields. This especially applies to industrial cooperation and joint ventures.⁷

In the broader sense investment cooperation with foreign countries consists of the export of capital goods and performance of investment projects abroad. The developing countries have exceptional importance to the Yugoslav economy in both forms of this cooperation. In the section on visible trade we have already shown that the exports of machinery and transportation equipment is the most important item among Yugoslav exports to the developing countries, that is, that they are buying more than one-third of all Yugoslav exports of these products. In 1976 these exports were going to 65 developing countries, though 70.7 percent of them still went to 5 countries (Iraq, Libya, Egypt, Brazil, India and Zambia [sic--translator's note]).⁸

Problems related to promotion of exports of machinery and transportation equipment to the developing countries corresponds in large part to the general problems of Yugoslav exports of products in this group. When it comes to the developing countries (except for OPEC), aside from credit support, it is very important that exports of machinery be fitted into the fulfillment of development plans and projects in which the Yugoslav economy is already participating through the performance of investment projects.

The developing countries are the principal markets of Yugoslav work organizations for the performance of investment projects abroad. Their share in the total value of work performed was about 99 percent in the 1956-1961 period, and then it dropped to its lowest level of 46 percent in 1971. The relative decline in the share of the developing countries was in line with the stagnation of the other forms of mutual cooperation, but in part it also resulted from the somewhat more favorable conditions in the European countries. As overall relations were invigorated, the relative significance of the developing countries with respect to performance of investment projects again has been increasing since 1973. In 1976 their share reached 64.6 percent. By comparison with the value of visible exports, which amounted to \$754 million, investment projects in the developing countries, amounting to \$532 million in 1976, represent an important achievement.

Still, however, construction work constitutes 84 percent of this amount, and construction of complete facilities only 16 percent, and the share of project planning services is only 2.4 percent. Recently the share of building construction has been increasing more and more, though hydraulic structures still keep to a level of about 40 percent of the value of all work done. Yugoslav organizations have become established builders of harbors, dams and hydroelectric power plants in Iraq, Libya, Peru, Zambia, Kuwait and other

countries. It is in fact in hydraulic structures that most of the Yugoslav equipment has been installed. In other types of work the share of Yugoslav products is by and large inadequate. One analysis at six large construction sites showed that Yugoslav machinery represented only 14 percent in total construction machinery.⁹ Opportunities are also missed for exporting from Yugoslavia a sizable portion of the materials used in capital investment projects (reinforcing steel, cement, cast shapes, sewer pipe, sanitaryware and electrical wiring materials). But on the Yugoslav market there is either an inadequate supply of these products, or they are not available in the necessary assortment.

Yugoslav contractors working on investment projects and producers of equipment have not been bound up with one another on the basis of shared income. To be sure, in 1975 most of these domestic organizations did sign a social compact concerning the procedure and conditions for performance of investment projects abroad, but the first significant results are still awaited. Under certain conditions it would also be necessary for them to have links with enterprises from other advanced or less developed countries and to act jointly with them.

In the long run, however, Yugoslav organizations, formed into fairly large associations, must together with scientific, project planning, engineering and consulting organizations become involved to a greater degree in the drafting and development of sectoral and regional, economic and land use plans, in the preparation of investment and technical documentation, especially in activities in which Yugoslav technology can be offered. This would ensure a larger sale of domestic equipment and materials. At the same time expansion of work on investment projects on that basis would have multiplier effects, which would be manifested in a demand for diverse services such as geological exploration, engineering supervision, consulting, transport and forwarding, insurance and reinsurance.

Industrial cooperation of Yugoslav organizations of associated labor with enterprises of the developing countries has not developed adequately.

Most of the existing cooperative relations have been established since 1970 with enterprises in India, Egypt, Pakistan, Turkey, Bangladesh, Indonesia and Algeria. Most frequently this cooperation involves the production of agricultural machines, drugs and products of the electrical equipment industry. Yugoslav organizations are achieving particular success in cooperation with the developing countries in the agricultural sector. In this sector our technology and organizational know-how in establishing large agricultural organizations are being passed on. Yugoslav agroindustrial combines have prepared more than 100 projects for promoting agriculture and the food processing industry in more than 20 developing countries.

Under certain conditions joint enterprises might be a suitable form of cooperation with the developing countries. In 1961 Yugoslav organizations were partners in 13 enterprises in 12 developing countries. Today Yugoslavia is

participating in 60 joint enterprises in the developing countries. A large number of these enterprises are engaged in trade and service activities. A sizable number of the joint enterprises are also involved in production (construction, mining, timbering, agriculture) in Colombia, Pakistan, Ghana, Guinea, Zambia and Mexico. The penetration of these firms into the economy of the developing countries and their involvement in carrying out the development programs of those countries are still significantly restricted by the form of the enterprise (in many cases they were patterned after the western model), by inadequate cooperation with other enterprises of the developing countries, by the insufficient financial strength of the Yugoslav partner, and by difficulties in transfer of profit.¹⁰

FOOTNOTES

1. However, the movement of prices and problems of statistical coverage can to some degree deform this indicator as well. Should it be found that the growth of export and import prices in trade with the developing countries was faster than in the case of overall Yugoslav trade, this would tend to increase the share of the developing countries in the value of Yugoslavia's foreign trade more than in its physical volume. At present there is no evidence that this fact had any appreciable effect. As time has passed the number of developing countries included in the "group of 77" has been increasing greatly. Comparability with the figures from the fifties and early sixties would be ensured only if the figures for that period were revised to account for the subsequent inclusion of those countries as they became members of the "group of 77." After 1965 the figures are correct from that standpoint, and in the earlier period Yugoslav trade was in any case markedly concentrated on a very small number of developing countries which have continuously been members of it. Operating in the other direction is the fact that there are still imports (in ever smaller volume) coming through the advanced countries, and to that degree the amount of imports from the developing countries has been unrealistically indicated.
2. The corresponding figures are \$158 million in 1962 and \$157.4 million in 1972.
3. IMF, "Annual Report 1977," Washington, D. C., 1977, p 9.
4. I. Fabinc, "Yugoslavia's Economic Cooperation With the Developing Countries in 1972 and 1973--Assessment of the Results," Center for Study of Cooperation With the Developing Countries, Ljubljana, 1975, p 30.
5. "Yugoslavia's Economic Relations With the Developing Countries in 1974," Center for Study of Cooperation With the Developing Countries, Ljubljana, 1976, p 12.

6. "Statistika robne razmene SFRJ za ZUR u periodu 1972-1975" [Statistics on Yugoslavia's Visible Trade With the Developing Countries in the 1972-1975 Period], Center for Study of Cooperation With the Developing Countries, Ljubljana, 1976, pp 91-92.
7. Because of the space given to this paper, we will not examine financial relations, cooperation in transportation and communications, and scientific-technical cooperation.
8. M. Verbic, "Yugoslavia's Investment Cooperation With the Developing Countries," Center for Study of Cooperation With the Developing Countries, Ljubljana, 1976.
9. Z. Vojnovic, "Performance of Investment Projects Abroad," a paper delivered at the international conference entitled "Transfer of Technology and the Developing Countries," Belgrade, September 1975, p 13.
10. Lj. Radonjic, "Forms and Methods of Yugoslavia's Investment Cooperation With the Developing Countries," EKONOMIKA UDRUZENOG RADA, No 9, 1978, p 521.

7045

CSO: 2800

YUGOSLAVIA

FIRST-QUARTER FOREIGN TRADE DATA RELEASED

Belgrade EKONOMSKA POLITIKA in Serbo-Croatian 23 Apr 79 p 26

[Editorial: "Foreign Trade"]

[Text] Exports Lag

According to data released by the Federal Institute for Statistics, during the first 3 months of this year exports grew 10 percent, while imports increased 29 percent in comparison with the same period of last year. Compared with March 1978, exports increased 1 percent, while they experienced a 1-percent decrease compared with February of this year. With respect to February, imports increased 15 percent.

During the first 3 months of this year exports of industrial products increased 13 percent. The total value of exported products amounted to 28,823,000,000 dinars. Monetarily, metallurgical products constituted the largest part of exported goods, for a value of 2,106,000,000 (a 32-percent increase), followed by production of mechanical machinery, for a value of 2,118,000,000 (16 percent), production of electrical machinery and equipment, for a value of 2,488,000,000 (13 percent), and production of food products, for a value of 1,649,000,000.

The value of imported industrial products amounted to 48,878,000,000; this represents a 29-percent increase compared to the first 3 months of last year. Imported petroleum and gas were valued at 5,787,000,000, ferrous metals products at 3,388,000,000, machinery products at 11,662,000,000, etc.

During the first 3 months of this year, exports of agricultural products decreased 26 percent, chiefly because of a 48-percent drop in exports of farming products.

Cattle exports increased 51 percent. The situation is reversed with regard to imports--a 42-percent increase in imports of farming products was recorded, while imports of cattle products dropped 17 percent.

1 Mar 1978

1 Mar 1979

(in millions of dinars)

	Exports	Index	Imports	Index	Balance	Percent change
Total	25,458	110	54,754	129	- 29,316	46.5 %
Classification according to republics:						
Bosnia and Hercegovina	3,445	119	4,215	150	- 2,770	55.4 %
Montenegro	422	80	1,206	195	- 748	34.9 %
Croatia	6,595	113	15,337	132	- 8,742	43.0 %
Macedonia	1,402	103	3,462	145	- 2,060	40.5 %
Slovenia	5,270	130	9,540	143	- 4,270	55.2 %
Serbia	8,304	98	14,990	115	- 6,686	55.4 %
Centralized territory	5,888	105	10,403	118	- 4,515	56.6 %
Kosovo	515	99	1,043	132	- 528	49.4 %
Vojvodina	1,901	83	3,544	103	- 1,643	53.6 %
Classification according to activities:						
Industry and mining	28,823	113	48,878	129	- 25,055	48.7 %
Agriculture and fishing	1,280	74	5,167	135	- 3,887	24.8 %
Forestry	203	115	289	127	- 86	70.2 %
Classification according to economic purposes						
Raw materials	13,056	104	33,208	127	- 20,152	48.7 %
Work equipment	4,734	134	15,209	129	- 10,475	31.1 %
Consumer goods	7,648	108	6,337	144	- 1,311	120.6 %
Classification according to countries						
Developed countries	11,395	115	33,654	143	- 22,259	33.9 %
Socialist countries	10,287	107	13,361	107	- 3,074	76.9 %
Developing countries	3,756	104	7,739	112	- 3,983	48.6 %

9343

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DATA ON CREDITS FOR ECONOMIC ENTERPRISES IN 1978

Belgrade EKONOMSKA POLITIKA in Serbo-Croatian 4 Jun 79 pp 17-18

[Unsigned article: "Effects of Reduced Credits"]

[Text] Organizations of associated labor in the economy are becoming increasingly dependent on credit both for their current operation and especially when they are investing in development. This is evidenced by data on the volume of credit (as of 31 December last year short-term credits amounted to 199 billion dinars, or 50 billion more than a year previously, and long-term credits 591 billion, or 122 billion more), by figures on amounts of interest (47 billion, which is more than the economy's net capital formation [total funds set aside for expansion minus current losses for the year--translator's note]), and also by figures on the share of the funds organizations of associated labor in the economy have themselves furnished to finance investment projects. The resources of organizations of associated labor in the economy last year had a share of 34 percent in payments for investment projects; the share of regular funds from giro accounts was slightly less than 16 percent.

This situation is the consequence of two different problems. One is current business operation to which most short-term credits are related, and the other is the development of organizations of associated labor, that is, the financing of investment projects. In practice the latter comes down to the poor ability of organizations of associated labor in the economy to accumulate capital and to reinvest. The low level of capital formation is the consequence of a number of disturbances in the system for expanded reproduction, in the system of taxation and decisionmaking concerning investment projects. Nor should we neglect in this connection the impact of the volume of credit on the capacity for capital formation of organizations of associated labor in the economy. In other words, it is clear that the growth in the volume of credit raises interest rates, whose direct effect is to reduce the net income of organizations of associated labor. Lower net income negligibly influences the level of personal income of the workers, but is most directly manifested in reduction of funds earmarked for financing expanded reproduction.

Dependence on Credit

In the period between 1971 and 1978 the money supply increased at an annual rate of 37.4 percent. This is slightly higher than the average growth rate of the social product not only in permanent prices, but even in current prices. The social product in current prices rose in that period at an average annual rate of 24.4 percent, while the annual growth rate of the real social product was 6.1 percent. At the same time the average annual growth rate of retail prices was 17.6 percent. The gap between the growth rate of the money supply and the social product in current prices was especially manifested in the period between 1972 and 1976, when the average annual growth rate of the money supply was 38.2 percent, and the average growth rate of the social product in current prices 23.8 percent. In 1977 and 1978 the money supply was growing more moderately (26.8 percent), which is just slightly higher than the growth rate of the social product in current prices (23.2 percent).

At the end of 1970 the money supply amounted to 37 billion dinars and by the end of last year had reached 329 billion, which means a growth that is approximately ninefold. At the same time the money supply of the production sector (accounts receivable from customers) stayed at practically the same level. This indicates almost complete dependence of commodity-money flows on official credit-monetary policy.

Table 1. Trend of the Money Supply, in millions of dinars

<u>Year</u>	<u>Official Money Supply</u>	<u>Money Supply of Production Sector</u>
1970	37.0	84.6
1971	42.5	113.5
1972	59.8	95.8
1973	82.1	97.3
1974	103.4	145.1
1975	137.8	163.9
1976	214.3	86.4
1977	257.2	105.9
1978	329.2	--

Source: "Analysis of Changes in Monetary Growth in Yugoslavia in the 1971-1978 Period," National Bank of Slovenia.

Up until 1976 the money supply of the production sector (mutual credit financing of organizations of associated labor) was larger than the official money supply. In 1976 a sudden change occurred. The money supply of the production sector dropped 50 percent from the previous year, while the official money supply increased more than 60 percent. This was the consequence of enforcement of the Law To Ensure Payments Between Users of Socially Owned Assets. That is how the monetary and banking system became decisive to the

financial operation of organizations of associated labor. Since 1977 the money supply of the production sector, that is, the volume of mutual credit financing of organizations of associated labor, has again been growing at a relatively fast pace. This is the consequence of the larger use of securities issues by organizations of associated labor on the basis of mutual commodity-money relations. It is primarily a question of broader use of bills of exchange.

Reduction of mutual credit financing of organizations of associated labor brings about larger use of credit. A growth of credit not only makes organizations of associated labor dependent on the banks, but it also diminishes the capacity for capital formation of organizations of associated labor. According to figures taken from year-end financial statements from last year organizations of associated labor in the economy paid 47 billion dinars in interest, which amounted to slightly more than 7 percent of the income the economy earned.

Table 2. Interest on Credit in 1978

<u>Activity</u>	<u>Amount, in millions</u>	<u>Share of Interest in Income Earned</u>
Economy	47,294	7.23
Industry	27,402	9.01
Agriculture and fishing	2,832	10.27
Construction	2,077	2.49
Transportation	4,161	7.20
Trade	7,820	8.50
Hostelry and tourism	1,191	5.68
Crafts and trades	438	2.16
Housing and utilities	512	3.57
Financial and other services	649	2.84

Organizations of associated labor in agriculture and fishing had the highest share of interest in the income they earned (10.27 percent), while organizations of associated labor in the crafts and trades (2.16) and in construction (2.49) had the lowest. The differences result primarily from the volume of investments, the specific nature of the production process (agriculture, for example) and the possibility of collecting advances, which in the present situation seems to be abundantly utilized by construction organizations of associated labor.

Project of the Social Accounting Service

The heavy burden which interest on credit puts on the income of organizations of associated labor, though a very important problem, is not the only one which arises out of the complete dependence of organizations of associated labor on credit. It is certain that any significant change in credit-monetary policy, and these changes are frequent, affects both the volume and

quality of business operation of organizations of associated labor, their development and their future economic position.

The Law To Ensure Payments Between Users of Socially Owned Assets, just like the increase in the number of users because organizations have come into conformity with the provisions of the Law on Associated Labor, that is, because of the increase in the number of basic organizations and giro accounts with the Social Accounting Service, has had the effect of increasing the volume of funds that has to be kept in the giro accounts of the economy. The funds in giro accounts are primarily increased by increasing the indebtedness of organizations of associated labor with the banks. It is true that the Law To Ensure Payments facilitates the use of securities. However, it is a fact that their use is still not so widespread, largely because of technical difficulties, especially in the case of endorsing bills of exchange. These difficulties are eliminated by the Project To Implement the System for Chain Payment and Accounting of Securities drawn up by the Social Accounting Service of Yugoslavia.

In the chain system of payment organizations of associated labor issue money on the basis of relations coming about in production and trade. That is, organizations of associated labor may pay by check to cover goods and services on the basis of checks received for products sold and services rendered, on the basis of balances in giro accounts, on the basis of funds pooled within the organization of associated labor, or on the basis of funds pooled in an internal bank. If the value of checks issued for coverage (verizenje) exceeds all these sources, the money of the basic bank (credit) will be used up to the agreed amount. Without going into the accounting technicalities, we can say that use of this system, assuming financial discipline on the part of organizations of associated labor and faultless operation of the mechanism in all units of the Social Accounting Service, would contribute to a considerable reduction of the need for organizations of associated labor in the economy to use short-term credit. The reduction of short-term credit would probably be slightly smaller than the average balance of giro accounts of organizations of associated labor. A figure between 50 and 60 billion dinars is mentioned in some efforts to assign a specific figure, which means that interest would be reduced by about 6 billion dinars. If the entire 6 billion went into the capital formation of organizations of associated labor, the economy's capacity for capital formation would increase between 10 and 15 percent. This is obviously no small benefit.

Reduction of interest paid by organizations of associated labor in the economy means that at the same time diminished income for the banks. It is being asked, then, who is bearing the burden of this redistribution of income? It is certain that the burden cannot fall on the work communities of the banks, since neither their material costs nor the number of workers employed would be reduced to any essential extent. The burden should be borne, then, by the holders of deposits in banks, as well as by organizations of associated labor in economic activities themselves, not only on the basis of

interest on deposits, but also on the basis of their share in distribution of the joint income earned in the bank.

Impact on Capital Formation

The possible growth of capital formation as a consequence of reduction of interest on credit is significant, though it does not essentially improve the capacity for capital formation of organizations of associated labor, at least not to the extent where they become the real principals in financing their own development.

Figures of the Yugoslav National Bank published in bulletin No 3 for 1978 show the situation with respect to capital formation and financial saving.

Table 3. Gross Accumulation and Financial Saving,* in billions of dinars

	<u>Gross Accumulation</u>		<u>Financial Saving</u>	
	<u>1976</u>	<u>1977</u>	<u>1976</u>	<u>1977</u>
Organizations of associated labor in the economy	117.2	169.3	-40.7	-59.8
Federation	-10.7	-11.5	-12.8	-12.5
Other sociopolitical communities	13.6	- 1.2	4.7	- 4.5
Other organizations	37.7	43.0	11.0	13.4
Other financial organizations	5.9	4.6	5.9	4.6
Individuals	80.0	88.1	32.0	36.7
Undistributed	2.8	-10.2	2.9	-10.2
Total cash surplus, or positive saving	246.5	282.1	56.5	54.7

* Gross capital formation includes both capital surplus and depreciation, and financial saving means gross capital formation minus investments and the growth of inventories.

Although the figures for last year have not been published, it is certain that the negative saving of organizations of associated labor in the economy has increased. This conclusion can be drawn from figures on the trend of funds set aside for expanded reproduction contained in year-end financial statements and the data on depreciation and outlays for investment.

Total outlays for investment in fixed capital amounted to 278 billion dinars last year, only 44 billion of which was paid from the giro accounts of organizations of associated labor in the economy. This indicates not only that organizations of associated labor in the economy are oriented toward bank credit, but also that as a practical matter investment decisions are not being made by associated labor.

The share of all sociopolitical communities on the basis of their own resources is slightly less than 2 percent in the financing of investments. It

is certain, however, that their influence on the making of investment decisions is by no means in proportion to that percentage. It is a fact, in other words, that sociopolitical communities have a decisive impact not only on approval of bank loans for major investment projects, but also make decisions which directly affect the share of what is referred to as the funds of organizations of associated labor. We are referring to enactments requiring that capital be pooled, that funds be placed in time deposits, that contributions be made to various public funds, that contributions be paid to finance the development of particular activities--for example, the fuel and power industry--and the like.

Table 4. Outlays for Investments in Fixed Capital in 1978 by Sources

<u>Description</u>	<u>Amount, in millions</u>	<u>Share, %</u>
Total	278,075	100.00
Organizations of associated labor in the economy	95,559	34.36
Giro accounts	44,192	15.89
Community consumption funds	2,363	0.85
Other funds	49,004	17.62
Organizations of associated labor in noneconomic activities	23,515	8.46
Self-managed special-interest communities in the public services	9,687	3.48
Banks	129,434	46.55
Dinar funds for investment	88,430	31.79
For housing construction	28,996	10.43
Credits extended from foreign exchange holdings	12,038	4.33
Lendings through banks	14,687	5.25
Opstinas	2,303	0.83
Republics and provinces	2,122	0.76
Federation	868	0.31

Commitment to the principle that organizations of associated labor in the economy should make decisions on their own concerning their own expanded reproduction is not in dispute. It is a fact, however, that actual behavior in all republics and provinces is contrary to that commitment. The question is therefore raised of what is actually involved here. How much does this situation result from efforts by a particular sociopolitical community not to fall behind other sociopolitical communities in its development, and how much does it result from the fear that implementing this principle would appreciably reduce the rate of investment and perhaps even the growth rate of the social product. It must be admitted that the latter is not unrealistic, since the system of expanded reproduction within organizations of associated labor has not been properly regulated. We are not thinking here only of a lack of legislation, but more of the absence of real economic incentives on

the part of organizations of associated labor to maximize their own capital formation and to commit their capital in the most efficient and profitable way. The saving of about 6 billion in interest loses some of its value in that light.

7045

CFO: 2800

MACEDONIAN FOREIGN TRADE TRENDS IN FIRST 5 MONTHS OF 1979

Belgrade BORBA in Serbo-Croatian 20 Jun 79 p 2

[Text] The SIZ (Self-Management Interest Community) for economic relations with foreign countries in Skopje said that Macedonian imports and exports in the first 5 months of this year are more than were planned in the so-called balance of payments position of the republic. Goods valued at 5,831,000,000 dinars (12.4 percent more than planned) were imported, while goods valued at 2,521,000,000 dinars (16 percent more than planned) were exported. This is a little better than that achieved for Yugoslavia as a whole but the coverage of imports by exports is nevertheless more than unsatisfactory. It was said that imports of goods in the first 5 months was high (58 percent more than in the same 1978 period) due to expected and unexpected circumstances. Above all, work is being completed this year on several large, key projects of the Macedonian economy and considerably more funds than last year have been provided for so-called seasonal purchase of raw materials and semi-manufactured goods which have increased considerably in price on the world market. Thus, raw materials needed for the textile industry have risen 30 to 35 percent in price, those for the chemical industry, especially those based on oil, have increased 50 to 80 percent. It was said that more raw materials, semi-manufactures, spare parts, and equipment were imported than were needed, especially because of the fear at the beginning of the year that imports would be restricted.

It is now expected that after the stagnation which usually occurs in the first months of the year, exports from Macedonia will expand and this year's very ambitious goals will be met. Because of the exceptional increase in general and social service expenditures, as well as all forms of other expenditures, the domestic market demand for goods is great, but prices are high. This acts to destimulate exports, nevertheless, ferrous alloys, non-ferrous metallurgical products, buses, tobacco, etc. are partially consumed on the domestic market but are largely exported.

However, in order to make conditions more stable in this regard, measures should be introduced which would not permit the consequences of undisciplined action in goods-monetary relations to be borne by all when difficulties arise as has happened this year, but only by those who were undisciplined and who have not kept their agreements.

CSO: 2800

PRODUCTION, OPERATION OF AGROINDUSTRIAL COMPLEX, 1975-1978

Belgrade EKONOMIKA POLJOPRIVREDE in Serbo-Croatian No 5, May 79 pp 89-99

[Excerpt from article by Luka Petrovic, Danilo Bozovic and Dragoslav Vuckovic, "Agrozajednica," Yugoslav Trade Community for Food Production and Trade, Belgrade: "The Socialized Sector and Certain Aspects of Its Future Development"]

[Excerpt] Organization of the Agroindustrial Complex* Along the Lines of Self-Management

In development to date the combines have played a very important role in the application of up-to-date technology and the organization of work and in linking together production, processing and trade. Internal relations within the combine, since the Law on Associated Labor took effect, have become more dynamic, and in the development of self-management the workers have been afforded considerably greater opportunities to debate and decide all the more important issues. Aside from these processes, in certain combines reproduction communities are being created that link together all the factors from production to consumption. The essence is for all phases of reproduction of particular products to be organizationally linked together on a self-management basis. In early 1978 more than 2,000 basic organizations and more than 420 work organizations of associated labor had been organized within combines. More than 20 complex organizations had also been organized. Here are several examples for some quite large complex organizations:

<u>Complex Organizations of Associated Labor</u>	<u>No of Work Organizations</u>	<u>No of Basic Organizations</u>
1. PPS† of Osijek	51	336
2. Associated Agriculture, the Food Processing Industry and Food Trade of Sarajevo	49	267
3. Servo Mihalj Industrial-Agricultural Combine of Zrenjanin	37	121

* The agroindustrial complex consists of agriculture, the food processing industry and food trade--translator's note.

Table (continued)

<u>Complex Organizations of Associated Labor</u>	<u>No of Work Organizations</u>	<u>No of Basic Organizations</u>
4. Beograd Agricultural Combine of Belgrade	29	132
5. Makedonija ZZPK of Skopje	22	150
6. Sirmium Agroindustrial Combine of Sremska Mitrovica	19	121
7. Danube-Tisa-Danube of Novi Sad	21	115

† Expansion of these abbreviations unknown--translator's note.

Setting up the combines and organizing them along the lines of self-management effects radical changes in relations, and this necessitates a new attribute in work and relations in the broader forms of pooling labor and capital in the agroindustrial complex. In addition to organizing and setting up combines on the basis of the Law on Associated Labor, it was also a question of building up relations among organizations of associated labor based on shared income. The initial results have been achieved, especially in relations between primary agricultural production and the diverse activities of the food processing industry. The building of relations based on shared income with the trade sector is lagging behind considerably, since various difficulties are being encountered.

Development of self-management socioeconomic relations in production entities in the agroindustrial complex is indispensable in the future orientation toward higher income, higher labor productivity, more harmonious development and more straightforward mutual relations. The principles and forms of the pooling of labor and capital in order to ensure planned development and the earning and distribution of income in proportion to the labor and assets invested are being manifested more and more all the time. The initial experiences indicate that two factors are basic to establishment of these relations: first, the economic position of the various phases of a particular cycle of reproduction, and second, the mutual socioeconomic relations which are established throughout the cycle.

Adoption of relations based on shared income in basic organizations of cooperators in agroindustrial combines and other forms of pooling labor and capital also has a relevance for society as a whole. It is a fact that private farms, viewed as a whole, cannot boost production on the basis of low income and underdeveloped agricultural production, low yields per unit capacity, and so on, without firmer ties with organizations of associated labor. Inadequately developed agricultural production also gives rise to various problems of a socioeconomic nature. In cooperation and firmer ties with the capital and labor of workers in organizations of associated labor, then, it is possible to speed up application of up-to-date technological schemes on private farms. The income of those farms will also rise because of the higher yields per unit capacity.

The pooling of the resources and labor of farmers with the labor and resources of organizations of associated labor in relations based on shared income should be viewed as an ongoing process in the long term. This is the most refined form of association, since it puts the farmer on a par with workers in organizations of associated labor. Viewed as a whole this process is going forward slowly.

In evaluating the level of business cooperation and development of the process of association with private farmers, we should bear in mind not only the subjective factors, but also certain objective factors which have an inhibitive effect. Basic organizations of cooperators as a rule have considerably scantier production resources than organizations of associated labor, viewed as a whole. The understaffing, especially the need for specialists with junior and senior postsecondary education, is a limiting factor in the way of faster development of these processes.

The conditions for the economic activity of certain branches and production operations--for example, in animal husbandry, which specifically needs to be intensified on the farms of private farmers through the development of business cooperation and association--are not always the most suitable for establishment of relations based on shared income.

The pooling of labor and capital of farmers on the principles of shared income is a very complicated job. There are also difficulties of a practical nature in successfully introducing this principle. Scientific research in this context is lagging behind; there are no appropriate models. Cases of hesitation therefore occur very frequently, the various practical problems are resolved in very different ways both with respect to the pooling of the farmer's labor and also his capital, that is, his land, and so on.

Moreover, some of the legislation dealing with farmers' associations has been late or has not been brought into conformity with the needs and requirements of practice, all of which is holding back the formation of associations.

Results Achieved in Production

The agreement on development of agriculture in the 1973-1975 period* and the agreement on development of the agroindustrial complex in the 1976-1980 period have dealt in detail with common interests, goals and policy governing development of the agroindustrial complex, the development of production and processing for the principal products, and the socioeconomic conditions and measures to implement development policy (investments, prices and compensation, credit financing, the food market, etc.). This has helped to increase

* The agreement consisted of three documents: "Basic Components of the Policy Governing Long-Range Development of Agriculture," "Elements of the System To Implement the Policy Governing Development of Agriculture" and "Agreement on Joint Bases for Expanded Reproduction."

food production and promote the development of socioeconomic relations in agriculture.

The agreement covering the 1976-1980 period foresaw the following growth rates: 4 percent for agriculture as a whole, 8 percent for socialized farms and 8 percent for the food processing industry. It also called for expansion of the landholdings of the socialized sector by 243,000 hectares. It planned 64 billion dinars to implement development policy, 41 billion of it for agriculture, 15 billion for the food processing industry and 8 billion dinars for water management. This amount of investment represents 11.4 percent of all investments in the fixed capital of the socialized sector of the economy.

Actual production in 1976 and 1977 was by and large satisfactory, while in 1978, because of bad weather, somewhat less favorable results were achieved. The growth rates of agriculture as a whole, of the socialized sector and of the food processing industry were as follows:

In thousands of tons				
	<u>Projected in 1976- 1980 Agreement</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>
Agriculture as a whole	4	7.0	5.0	-5
Socialized farms	8	13.0	7.0	-2
Food processing industry	8	8.0	8.0	8

The production of the most important basic agricultural products has been as shown in the table below.

In thousands of tons				
<u>Product</u>	<u>Projected in 1976- 1980 Agreement</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>
Wheat	6,100	6,084	5,708	5,355
Corn	10,700	9,106	9,865	7,585
Sugar beets	8,720	4,711	5,283	5,158
Sunflower seed	696	319	479	539
Fruit	2,000	1,500	1,600	1,500
Meat	1,250	1,052	1,155	1,235
Milk--millions of liters	4,550	3,871	4,079	4,160

The reduction of the physical volume of output in cropping for 1978, which up to now has had a considerably higher rate of capital formation than the rest of production in the agroindustrial complex, will have an adverse effect on the economic position of the agroindustrial complex as a whole. That is, in that branch of production there will be a considerable drop from the past level of capital formation. According to the results of some

combines, in view of the high costs per unit area, there will be losses in those cases when wheat yields fall below 45 quintals per hectare.

Livestock production, which for a long time has recorded an appreciable deterioration of its economic position, will end operation with poorer financial results in 1978 than in the previous 2 years of the planning period. After the record production of corn in the first 2 years covered by the plan, problems arose on the market for this product because of its high price. Because of the considerably smaller corn harvest in 1978, still greater problems are arising. The unstable corn market and the high price of corn are having an especially adverse effect on livestock production. The livestock feed industry consumes about 2 million tons of corn annually.

Deterioration of the economic position of the production of fattened livestock, which for years now has been operating at a loss, will continue at a still faster pace. Because of the lack of corn and the high price of corn hog production has found itself in an especially adverse position. There are evident tendencies toward a reduction in the number of hogs and toward the sale of young pigs in certain production areas at unusually low prices. Milk production, which in the past recorded good results, will also find itself in a difficult economic situation.

The share of important agricultural products of the socialized sector in total production will keep to a fairly stable level.

<u>Product</u>	<u>In %</u>		
	<u>1975</u>	<u>1976</u>	<u>1977</u>
Wheat	39.0	41.0	40.0
Corn	17.0	16.0	16.0
Sugar beets	67.0	74.0	70.0
Sunflower seed	49.0	53.0	51.0
Grapes	23.0	20.0	21.0
Beef	31.0	29.0	22.0
Pork	33.0	33.0	26.0
Poultry meat	35.0	35.0	37.0
Milk	9.1	8.8	8.6

The socialized sector's share in purchases of certain important agricultural products also shows a definite stabilization.

<u>Product</u>	<u>In %</u>		
	<u>1975</u>	<u>1976</u>	<u>1977</u>
Value of total purchases	46	47	47
Wheat	65	67	61
Corn	58	49	54
Sugar beets	70	77	71
Sunflower seed	49	55	55

Table (continued)

Product	In %		
	1975	1976	1977
Table grapes	61	78	75
Wine	59	78	78
Hogs	39	41	38
Cattle	24	20	24
Poultry	80	82	84
Milk	30	27	25

Because of the smaller volume of production in 1978 the relation between supply and demand for raw and processed foods has been upset. This has been compounded still more by the unresolved problems concerning the financial and physical basis of the market. There has not been an appropriate solution to the question of purchases, sales as an intervention, prices, relations in the system for the administration of reserves in the Federation, the republics, the provinces, etc. Although the agreement stated that the system of commodity reserves was to be improved, that material balances for food in the coming year be prepared before 1 October of the current year, this nevertheless was not entirely achieved. To be sure, there are also objective difficulties here--inadequate storage space, inappropriate solution of the problem of credit financing and prices.

Labor productivity for the principal agricultural products is rising steadily in the combines. According to the results of a survey,* in the 1971-1975 period the average growth rate of labor productivity in agriculture was 2.98, while in industry it was 3.8 and in the economy as a whole it was 2.36.

Between 1974 and 1976 there were the following reductions of the expenditure of human and machine labor:** from 41.76 hours per hectare to 36.63 hours per hectare for wheat, from 93.65 to 88.06 hours per hectare for corn, from 321.75 to 246.46 hours per hectare for sugar beets, from 81.93 to 69.40 hours per hectare for sunflowers, and so on.

Large variations were established by studying the expenditure of live labor in the production of wheat, corn, sugar beets, sunflowers and alfalfa in about 100 basic organizations of associated labor within agricultural combines. The average annual reduction of live labor has been the most dynamic in the production of sugar beets and corn, and it has been lowest in the production of wheat and alfalfa. In the production of wheat the level of

* Agrozajednica, the Yugoslav business community for food production and trade, is organizing regular research on labor productivity and is examining the results achieved in conferences of specialists.

** Studies in 1976 covered approximately 64,000 hectares of wheat, 31,000 hectares of corn, 18,400 hectares of sugar beets, 8,600 hectares of sunflowers, 31,095 cattle, including 13,127 dairy cows, and 121,368 hogs.

the yield per hectare has varied considerably more from year to year than the expenditure of labor. Moreover, a substantial correlation was established between labor productivity and costs. In all of the crops mentioned the reduction of the expenditure of labor was more sizable than the increase in the yield per unit area.

In the production of cow's milk we note a constant and gradual reduction in the expenditure of live labor, but also a sizable variation from one basic organization of associated labor to another. The studies established that labor productivity in milk production depends to a greater degree on the number of animals attended by each worker directly involved in that production than on the milk yield per cow.

The characteristics of labor productivity are as follows for the principal agricultural products:

- i. the highest labor productivity has been achieved in the production of wheat and then corn and sugar beets,
- ii. there is a considerable correlation between labor productivity and economic results,
- iii. the expenditure of direct human labor per unit capacity is high, especially in livestock production,
- iv. costs in terms of direct gross personal incomes per unit capacity are rising appreciably, though the expenditure of direct human labor is dropping.

Economic Position and Operating Results

In spite of the favorable trends in the physical volume of production, the trend of a deterioration of the economic position of the agroindustrial complex has continued in the first years covered by the agreement. The low level of capital formation, the scarcity of funds for expanded reproduction and the overindebtedness of this activity still represent a serious problem. In general the position of the agroindustrial complex is less favorable than that of the economy as a whole, though higher labor productivity is achieved in the agriculture of the socialized sector.

The operating results of the socialized sector of agriculture show different tendencies in 1976, 1977 and 1978. Gross income in 1977 had a satisfactory growth over 1976. The 24-percent growth rate of gross income covered the 4-percent growth rate of employment and also the rate of inflation of about 15 percent. The 5-percent difference represents the rise of labor productivity in 1977. The growth of agriculture's gross income in 1978 was 17 percent.

Income earned in 1977 amounted to 20,488 million dinars, which is 23 percent more than in 1976. In 1978 income in agriculture increased 34 percent. The

distribution of income was as follows: 24.5 percent for legal and contractual obligations and interest, 65 percent for personal incomes and community consumption, and 7.5 percent for funds. When we look at the period from 1965 to 1977, we see that income has increased ninefold, but earnings transferred to funds have increased only fivefold. In 1965 15.3 percent of income went to funds, while in 1977 only 7.5 percent was assigned to funds.

Capital formation in 1977 amounted to 1,577 million dinars, or 9 percent less than in 1976. The financial result was modest alongside the physical volume of production that was achieved. This is especially evident if we divide the financial result by the value of assets employed, which gives us a rate of 1.8 percent. When losses are subtracted, then the free and available surplus is only 0.9 percent. We should emphasize that obligations arising out of long-term credits amount to 22.4 billion dinars, and annual payments amount to 3.1 billion dinars. This represents a 32-percent growth of obligations arising out of credits by comparison with 1976.

An analysis of the behavior of gross income and income shows that in 1975 the growth of income was less than the growth of prices, while the value of assets employed increased faster than the newly created value. This is happening for the first time in agriculture. The year 1976 was characterized by a change in the system of computing gross income on the basis of paid sales and revaluation of fixed capital. Sales in agriculture which were billed but not paid amounted to 1,407 million dinars in 1976, and the revaluation put depreciation at 597 million dinars.

Within the agroindustrial combines there are numerous facilities of the food processing industry, about 30 percent of the country's entire capacity. The results of operation in 1977 show that there are rather large differences in production, productivity and financial results. The most unfavorable situation is in slaughterhouses and fruit and vegetable processing plants. Certain indicators for 1976 and 1977 show how these activities have been developing.

Activity	Per Worker in 1976			Per Worker in 1977		
	Gross	Income	Net	Gross	Income	Net
	Income		Personal Income	Income		Personal Income
Slaughterhouses	689,400	58,528	3,453	792,700	75,092	3,772
Dairies	807,000	119,121	4,177	995,000	147,331	4,865
Oil mills	1,055,000	108,964	3,828	1,496,000	162,548	4,454
Sugar mills	810,600	324,680	4,548	1,055,000	381,700	5,497
Fruit and vegetable processing plants	363,364	71,740	3,078	422,930	91,030	3,480

Source: Figures of the Social Accounting Service.

This table shows the following:

- i. the gross income per worker in 1976 ranged from 363,364 dinars (fruit and vegetable processing) to 1,055,000 (oil mills), i.e., about threefold greater, while in 1977 it ranged from 422,930 dinars (fruit and vegetable processing) to 1,496,000 dinars (oil mills), or a difference of more than fivefold,
- ii. that income per worker in 1976 ranged from 58,528 dinars (slaughterhouses) to 324,680 dinars (sugar mills), or a difference of about fivefold, while in 1977 it ranged from 75,092 dinars (slaughterhouses) to 381,700 dinars (sugar mills), or a difference of about fivefold,
- iii. that personal incomes per worker ranged in 1976 from 3,078 dinars (fruit and vegetable processing) to 4,548 dinars (sugar mills), while in 1977 they ranged from 3,470 dinars (fruit and vegetable processing) to 5,497 dinars (sugar mills).

Economic policy and the elements of the system have not been consistently pursued according to the agreement. This has had an adverse effect on the economic position of the agroindustrial complex and on the level of its organization. Aside from the objective factors, a number of subjective factors have also tended to detract from its economic position. Problems in the future development of the agroindustrial complex also arise in part because slow progress is being made in establishing self-management socioeconomic ties on the basis of shared income among all participants in the production cycles of the most important products.

Year-end statements for 1978 of more than 1,600 organizations of associated labor in the socialized sector of agriculture show, however, less favorable, and we might even say adverse, trends, which is certainly mostly the result of the drop in yield in cropping (wheat, sugar beets and especially corn). The physical volume of agricultural production as a whole in the socialized sector is down 5 percent from 1977.

Gross income shows a nominal growth of only 17 percent, which would correspond only to the effect of price rises, while income was growing considerably faster: 34 percent. The net surplus assigned to the business and reserve funds was only 7 percent higher than in previous years, while losses were up 42 percent.

Thirty-two percent of distributed income in agriculture goes to meet legal and contractual obligations and to pay interest on credit--as against 24.6 percent in the previous year. As we see, this is a rise not only over the previous year, but also an appreciable rise over the general average for the economy as a whole. In agriculture, then, there had to be a drop in the share both of assignments for personal income (from 63 percent in 1977 to 55.2 percent in 1978) and also of assignments to funds (from 7.6 percent in 1977 to 7.1 percent in 1978). That is why average personal incomes in

agriculture increased 4 percent in nominal terms, which means a considerably smaller increase than the rise of prices.

In the socialized sector of agriculture the rate of capital formation is 1.57 percent (as compared to 1.83 percent in 1977). However, if all organizations of associated labor are viewed as a whole, and the surplus earned by some is diminished by the losses shown by other organizations of associated labor, this figure, which we refer to as net capital formation, when divided by the average assets committed would show only a symbolic 1.8-percent rate of accumulation for the entire economy and only 0.6 percent for agriculture separately.

This same adverse picture is also obtained when we examine the reinvestment capability of the economy as a whole and of the socialized sector of agriculture separately. The sum of the net surplus and depreciation are the basis for the ability to reinvest, and the rate is obtained by dividing that base by the average fixed capital and working capital employed. For the entire economy this rate of the ability to reinvest is 6.09 percent for 1978, as against 6.33 percent in 1977. When the socialized sector of agriculture is taken separately, the rate of the ability to reinvest is 4.34 percent for 1978 and 4.74 percent for 1977.

As we see, the rate of the ability to reinvest is considerably lower in agriculture than the overall average for the entire economy, and not only is this unfavorable, it is absolutely inadequate.

The sum total of the net surplus and depreciation of the socialized sector of agriculture amounted to 4,771 million dinars in 1971, and payments come due on credits in 1978 alone amounted to 4,863 million dinars. As a logical consequence of this level of the ability to reinvest, the need for the purposes we have mentioned in simple and expanded reproduction of the material base of the economy are being met to an ever greater degree out of credit.

Differing results are noted in 1978 for the manufacturing groupings of the food processing industry which we have examined and which were analyzed.

In relative terms the most favorable results were achieved in the groupings of dairies and oil mills. There was this difference that these results were also satisfactory for dairies in the previous year, and, with a somewhat slower growth in 1978, they are still quite favorable, while in the case of oil mills these results were appreciably poorer in the previous year, and they became favorable thanks to a considerable growth in 1978. The rate of capital formation (the loss was not taken into account) was 3.1 percent for dairies (as against 5.5 percent in 1977) and 3.8 percent for oil mills (as against 1.7 percent in 1977). The highest average personal incomes were also in these two groupings: 5,137 dinars in dairies and 5,256 dinars in oil mills.

On the other hand fruit and vegetable processing and meat processing, groupings which have chronically recorded appreciably poorer financial results, are now on the way up thanks to a quite rapid growth of income (45 percent in fruit and vegetable processing and 58 percent in meat processing) and a more modest assignment to personal incomes. Thus their rate of net capital formation shows a certain growth (3.4 percent for fruit and vegetable processing and 1.6 percent for meat processing), but average personal incomes are appreciably lower than the average for agriculture (12 percent lower in the case of fruit and vegetable processing and 8 percent lower in meat processing).

Finally, the grouping of sugar mills had a high rate of accumulation and was almost without losses up until 1978. However, in 1978 employment rose 8 percent, and average assets employed increased 42 percent (with the construction of new facilities), while gross income unexpectedly dropped to 75 percent of the 1977 level, and income stood at 58 percent of the 1977 level. Thus the surplus set aside to funds was one-seventh of what it had been in the previous year, while losses were 20-fold larger. Thus the rate of capital formation (not counting losses) dropped to 0.8 percent, and the rate of the ability to reinvest dropped to 3.7 percent, and there had to be a drop of 9 percent in personal incomes, which in any case had previously been high.

The deterioration in the economic position of the agroindustrial complex also occurred partly because of diminished investments, unfavorable terms for credit financing, the inappropriate price system and foreign trade system and in general the measures taken in market policy.

The volume of capital investments completed is lagging considerably behind the plan. It was expected that the development of the agroindustrial complex would annually receive 11.4 percent of all the investments in the economy. However, investments in 1976 amounted to only 9.2 percent of total investments in the economy, and those in 1977 represented 7.6 percent of that figure. The largest drop in investments has been in primary agricultural production.

The share of the "own" assets of organizations of associated labor in investing in agricultural production has not increased as foreseen by the agreement, but has dropped from 1975. Investment projects are being financed with credits obtained on unfavorable terms. That is, associated labor has been compelled, usually because it lacks its own resources, to accept credit financing on the short term and at high interest rates. This increases production costs, so that this kind of production is unprofitable and uncompetitive.

The reduction of investments in primary agricultural production will have an adverse effect on the future development of the agroindustrial complex. As a rule processing facilities in almost all cycles of reproduction are oversized, and they are not fully utilized because of a lack of raw materials.

This has been boosting production costs and has been a drag on the economic position of most groupings in the manufacturing industry using raw materials of agricultural origin. In the period that has passed there was an increase in processing capacity either because old facilities were expanded or new ones built. Yet the volume of raw materials has not increased commensurately. Trends like this will bring about a still greater aggravation of this problem in the next planning period unless the necessary steps are taken in good time.

The credit financing of production and inventories of farm products and processed foods is by and large not in line with the needs of the agroindustrial complex. Rediscounting of credits deals with this problem only for certain strategic products, and sometimes even this is incomplete. In other words, the commercial banks, which share with their financial resources in this credit financing, are often unable to keep proper pace with needs, and this slows down or impedes the use of the rediscounted credits.

Consumer areas, as users of the products of agriculture and the processing industry, are not sharing in the credit financing of production even of those products which are important to supply and are not covered by the regime of rediscounted credits. The credit financing of all processes in the cycle of reproduction is a very important factor to establishing a self-management association between the production and trade sectors, and the lag of credit financing is certainly an impediment to the establishment of these relations.

Foreign trade in farm products and processed foods did not meet expectations in 1976 and 1977. The lag occurred because of a considerable drop in exports of goods which have a dominant place in the pattern of exports of farm products and processed foods: corn, livestock, meat and processed meat products. According to a current assessment of supply and demand in the world and the trend on the domestic market, the envisaged export of 1.5 million tons of corn by the end of the planning period will not be achieved unless steps are taken in good time to stabilize the domestic market and stimulate exports.

The situation is similar with meat exports. About 12 percent of meat production is exported. Difficulties in exporting meat to the Common Market countries, which occurred back in 1974, have not been mitigated even in the period covered by the agreement. The shutting off of certain of our traditional markets for the sale of these commodities, as well as the very favorable natural conditions for the production of cheap beef in certain overseas countries are making it more and more difficult for us to export meat.

The features of the system to encourage and stimulate exports of farm products and processed foods are usually adopted late. Unfamiliarity with conditions, along with the lack of supplemental measures and incentives to promote them, make it impossible to achieve continuity in exports and stand in the way of sales, since new business relations must constantly be established.

Nor has tariff policy been adapted to the current needs of agriculture and the food processing industry. In large degree this policy has the characteristics of a fiscal instrument, so that its constructive impact on economic relations is lacking. That is, duties on imports of equipment and reproduction materials not produced in our country are a sizable burden on production costs.

On the market for agricultural products there has not been the increased firmness that is needed in economic ties and the level of organization on the basis of shared income, which is why the expected solutions in the price field have not come about. In the development of self-management economic relations on the basis of shared income among participants throughout reproduction cycles in the production of various commodities only the initial results have been achieved. The pooling of capital and labor of organizations in the production and trade sectors is in its initial phase, and problems of incompatibility between the different phases in the cycles of reproduction in the production of particular commodities are still arising, there is instability on the market, and so on. By and large the relations of purchase and sale have been retained, and the trade sector still has the dominant role, especially the large specialized commercial organizations.

The prices of farm products have particular importance to the socialized sector of production since this is a predominantly commodity producer reacting quickly to changes on the market.

Another reason why the present system of guaranteed and minimum purchase prices has not been able to ensure a stable market equilibrium is that price policy has not been synchronized with the other measures of intervention policy. The content of the measures of intervention has consisted more of repairing the damage than of preventing cases of that market disequilibrium. To tell the truth, it seems that the system of intervention policy has still not been completed and that it is unable to have an effective impact on the complicated set of domestic and external circumstances.

The agreement called for producer prices and support prices to be established in good time so that producers would have time to adopt a particular line of production. In recent years, especially in 1978 and this year, guaranteed prices for corn have had practically no impact on the market. Corn prices obtained by producers on the market through direct sale or sale through livestock production are considerably higher than the guaranteed prices. The discrepancy between the guaranteed prices and the market prices, along with the absence of timely intervention with physical reserves, has the consequence of a difficult economic position for livestock raising, especially hog production. The import of corn as an intervention did not yield a satisfactory benefit because of its tardiness.

The system and regime of retail prices in Yugoslavia have had a one-sided function in the period that has passed. They have been oriented primarily toward protection of consumption, and the production and processing sectors have been neglected. Retail prices have as a rule been set at a rather low level, and efforts to bring them into line with purchase prices have been tardy. Prices of milk and dairy products represent a special problem.

LIVESTOCK IMPORTS, EXPORTS IN 1978

Belgrade EKONOMIKA PROIZVODNJE HRANE in Serbo-Croatian No 4, Apr 79 pp 61-65

[Article by Miladin Sevarlic, graduate engineer, School of Agriculture in Zemun, and Dragan Markovic, graduate engineer, Federal Bureau for Social Planning in Belgrade: "Livestock Raising in Yugoslavia's Foreign Trade, With a Special Look at 1978"]

[Text] Our country is both an exporter and also an importer in the international trade in agricultural products.

Agriculture's share* in the value of Yugoslavia's total exports ranged between 14.4 percent (1969) and 7.6 percent (1974) in the period between 1968 and 1978. Livestock raising, whose share ranged between 40.5 percent (1974) and 75.1 percent (1972), with a tendency toward a gradual reduction in its share after 1975, had the dominant place in the breakdown of agriculture's exports.

In that same period agriculture's share in the value of total Yugoslav imports ranged between 8.9 percent (1974) and 4.4 percent (1975). The share of animal husbandry in the breakdown of imports of Yugoslav agriculture in value terms ranged between 45.8 percent (1973) and 21.7 percent (1976) and exceeded the value of the share of cropping in 1970 and 1973.

Table 1. Share of Livestock Raising in the Value of the Exports and Imports of Yugoslav Agriculture in the Period From 1968 to 1978 (value of exports or imports of agriculture = 100%)

	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>
Exports	63.0	65.1	59.6	67.1	75.1	63.4	40.5	55.8	50.9	50.6	44.9
Imports	36.6	35.4	43.5	26.4	29.2	45.8	33.9	31.7	21.7	27.5	27.0

Source: "Statistika spoljne trgovine SFR Jugoslavije (1968-1977)" [Yugoslav Foreign Trade Statistics (1968-1977)], Federal Bureau of Statistics, Belgrade.

* The figures pertain to primary agricultural production.

The figures in Table 1 show that the share of animal husbandry in the quantitative breakdown of the exports and imports of Yugoslav agriculture in value terms was 44.9 percent and 27.0 percent, respectively, in 1978. That is, the value of exports of animal husbandry was 4,272 million dinars, and the value of imports of livestock products was 3,473 million dinars; exports exceeded the value of imports by 799 million dinars, or 23.0 percent.

The most important products or groups of livestock products exported last year (Table 2) were meat, breeding stock and livestock for slaughter, representing 95.0 percent of the total value of exports of animal husbandry.

In the breakdown of meat exports in value terms, totaling 2,638.8 million dinars in 1978, baby beef had a share of 84.8 percent, pork 7.9 percent and lamb 6.7 percent, and the share of other types of meat was 0.6 percent.

Table 2. Breakdown of Exports of Livestock Products in 1978 in Value Terms

<u>Product Group</u>	<u>Value of Exports, in millions of dinars</u>	<u>%</u>
Animal husbandry as a whole	4,272.0	100.000
Meat--Total	2,638.3	61.700
Baby beef	2,237.8	52.400
Beef	2.0	0.050
Veal	0.1	0.002
Pork	208.2	4.900
Lamb	177.3	4.200
Mutton	0.2	0.005
Poultry meat*	4.3	0.100
Edible viscera	8.4	0.200
Breeding stock	808.0	18.900
Cattle	359.4	8.400
Horses**	445.3	10.400
Hogs	2.7	0.060
Poultry	0.5	0.010
Livestock for slaughter	617.3	14.400
Horses	513.2	12.000
Lambs	79.4	1.900
Sheep	0.3	0.007
Poultry	14.1	0.300
Donkeys, hinnies and mules	5.6	0.100
Other types of livestock	4.8	0.100
Milk	32.7	0.800
Eggs	13.7	0.300
Fats	9.9	0.200
Wool	25.4	0.600
Feathers	67.6	1.600
Hair and bristles	12.3	0.300
Hides***	3.1	0.100
Other livestock products	74.6	1.100

Footnotes to Table 2:

- * Includes the value of chickens, turkeys and geese.
- ** Includes the value of horses for breeding, riding, work and young horses (colts).
- *** The figure pertains only to kidskin.

Source: "Holeriti za izvoz i uvoz u 1978 godini" [Hollerith Constants for Exports and Imports in 1978], Federal Bureau of Statistics, Belgrade.

Exports of breeding stock brought in 808 million dinars, in which the most important items in value terms were exports of horses (55.1 percent) and cattle (44.5 percent). Horses (83.1 percent) and lambs (12.9 percent) comprised 96.0 percent of the value of exports of livestock for slaughter, whose value in 1978 was 617.3 million dinars.

By contrast with exports, wool, hides and meat have a share of 88.4 percent in the value of imports of livestock products (Table 3), which totaled 3,473 million dinars.

Table 3. Breakdown of Imports of Livestock Products in Value Terms in 1978

<u>Product Group</u>	<u>Value of Imports, in millions of dinars</u>	<u>%</u>
Livestock raising--total	3,473.0	100.000
Meat--total	755.2	22.300
Beef	733.9	21.100
Pork	15.7	0.500
Viscera	25.6	0.700
Breeding stock	128.1	3.700
Cattle	55.0	1.600
Horses	2.8	0.100
Hogs	1.8	0.100
Sheep	1.0	0.030
Poultry	64.5	1.900
Other types of livestock	2.9	0.100
Livestock for slaughter	47.8	1.400
Sheep and goats	0.8	0.002
Poultry	47.0	1.400
Hides--total	1,103.1	31.800
Cattle and calf	394.9	10.100
Horse	7.6	0.200
Pig	229.2	6.600
Sheep and lamb	470.2	13.500
Other types of hides	1.3	0.040
Wool--total	1,192.7	34.300
Unscoured Merino wool	1,070.5	30.800

Table 3 (continued)

<u>Product Group</u>	<u>Value of Imports, in millions of dinars</u>	<u>%</u>
Scoured Merino wool	73.0	2.100
Scoured wool of crossbreeds	20.7	0.600
Reused wool	28.5	0.800
Hair and bristles	25.2	0.700
Feathers	13.4	0.400
Eggs	24.8	0.700
Other livestock products	149.4	4.300

Source: The same as for Table 2.

Unscoured Merino wool had a share of 1,070.5 million dinars, or 89.8 percent, in the total value of wool imports, which in 1978 was 1,192.7 million dinars.

Sheep and lamb skins had a share of 42.6 percent, cattle and calf a share of 35.8 percent and pigskin a share of 20.8 percent, comprising 99.2 percent of the total value of imports of hides.

The high value of imported meat, which in 1978 was 775.2 million dinars, represents 22.3 percent of the total value of imports of livestock products. This is the result of imports of frozen beef destined for the food processing industry, that is, for the production of sausage products and canned meat products. This statement is confirmed by the figures in Table 3, which show that imports of beef alone represent 94.7 percent of the value of total meat imports.

The value of poultry and cattle is 93.3 percent of the total value of breeding stock imported, though their absolute value is relatively small and represents only 119.5 million dinars, or 3.5 percent of the total value of imports of livestock products. The figures point to the conclusion that at the present level we have reached in the development of animal husbandry we are able to furnish high-quality breeding animals for the future development of our animal husbandry in order to constantly upgrade herds.

In the breakdown by groups of countries* the markets of the advanced countries accounted for 4,011.9 million dinars or 93.9 percent of the total value of exports of livestock products (Table 4). Within this group of countries the largest importers of our livestock products last year were Italy (1,876.2 million dinars) and Greece (1,787.3 million dinars), whose share is 91.4 percent of the value of our exports of livestock products to the advanced countries.

* The classification of countries onto whose markets we export or from whose markets we import livestock products was taken from the publication "Statistike spoljne trgovine SFR Jugoslavije," Federal Bureau for Statistics, Belgrade.

Table 4. Breakdown of Exports of Livestock Products in Value Terms by Groups of Countries in 1978

<u>Group of Countries</u>	<u>Value of Exports (in millions of dinars)</u>	<u>%</u>
Advanced countries	4,011.9	93.9
Socialist countries	155.8	3.7
Developing countries	<u>104.5</u>	<u>2.4</u>
Total	4,272.0	100.0

Source: Same as for Table 2.

In second place we find exports to the markets of the socialist countries with a value of 155.8 million dinars, or only 3.7 percent of the total value of exports of livestock products. Within that figure the USSR has a share of 139.4 million dinars, or 89.7 percent.

Finally, the smallest exports of livestock products in value terms, only 104.5 million dinars, went to the markets of the developing countries, where the most important importers are Libya and Tunisia (79.8 percent).

The ranking of the groups of countries with respect to the value of imports of livestock products is the same as the one just given, though the socialist countries and the developing countries have a slightly more favorable share, as confirmed by the figures on this in Table 5. In other words, the advanced countries have a share of 76.3 percent, the socialist countries 15.5 percent and finally the developing countries 8.2 percent.

Table 5. Breakdown of Imports of Livestock Products in Value Terms by Groups of Countries in 1978

<u>Group of Countries</u>	<u>Value of Imports (in millions of dinars)</u>	<u>%</u>
Advanced countries	2,649.9	76.3
Socialist countries	538.5	15.5
Developing countries	<u>284.6</u>	<u>8.2</u>
Total	3,473.0	100.0

Source: Same as for Table 2.

Within the group of advanced countries imports from Australia show the highest value of imports of livestock products at 1,811.3 million dinars, or 68.4 percent. The share of wool in that is 61.7 percent, that of beef (for the use of the food processing industry) 24.5 percent and various types of hides (lamb skins above all) 12.8 percent.

Among the socialist countries we import the most from Czechoslovakia (29.5 percent), and then from the USSR (20.5 percent) and Hungary (16.5 percent). Hides, meat and eggs are among the most important livestock products which we import from those countries.

In the group of developing countries the largest exporters of livestock products to our country, hides and wool above all, are Iraq with 21.4 percent and then Lebanon with 14.9 percent and Tunisia with 12.2 percent of the total value of imports of livestock products from the developing countries.

On the basis of the share of animal husbandry in the exports and imports of Yugoslav agriculture one can frame the following conclusions:

- i. the share of animal husbandry in the value of exports of farm products is decreasing, while at the same time there is an increase in the value of exports of processed goods, which is constructive and very important as an orientation toward the export of quality products, that is, products whose value has been increased;
- ii. the trade surplus last year indicates that livestock raising has exceptional importance in reducing the deficit in the trade balance of our agriculture, which in 1978 was 3,435 million dinars;
- iii. meat represents the most important group of products in the breakdown of exports of livestock products in value terms. Then come breeding stock and livestock for slaughter. The dominant share of baby beef in the structure of exports of this group of products in value terms indicates that the growth of consumption of high-quality baby beef depends above all on the per capita level of income and distribution of available funds and also on tradition, that is, eating habits our country's population has acquired;
- iv. the share of the value of horses for breeding, riding and slaughter in the breakdown of exports of livestock products in value terms shows that this branch of animal husbandry, which for years has been pretty much neglected, has increasing importance to achieving a surplus in the trade balance of livestock raising;
- v. the very high share of wool (34.3 percent), hides (31.8 percent) and frozen beef (21.2 percent) in the breakdown of imports of livestock products in value terms is the result of a fairly long-term and pronounced tendency toward a scarcity of these products in our country. That is, they are an indispensable raw material for the textile, leather and food industries, whose needs are so great that even in the near future we will not be able to satisfy them from domestic sources;
- vi. the ranking of countries with respect to their share in the value of exports and imports of livestock products was identical last year (in first place were the advanced countries, followed by the socialist countries and finally the developing countries), but the relative share differed, which indicates that the value of imports of these products from the socialist countries and the developing countries is greater than the value of our exports to those countries.

BRIEFS

SLOVENIAN-MACEDONIAN TALKS--With a stay in Ohrid and discussions on existing cooperation and measures to further such cooperation, the visit of a delegation from the Slovenian Executive Council to Macedonia was concluded. From 21 to 23 June this delegation led by Dr Anton Vratusa and including representatives of the Economic Chamber of Slovenia, and the Bank of Ljubljana visited the Hemateks work organization in Skopje, the Lozar agrocombine in Titov Veles and the Heroj Toza Dragovic auto parts plant in Ohrid where they were acquainted with the processes of production and possibilities for cooperation. The delegation also talked with representatives of the "Karpos" district in Skopje and representatives of the Titov Veles, Bitola, Ohrid, and Struga opstinas, and it was said that inter-opstina cooperation between some Slovenian and Macedonian opstinas is developing favorably. The hosts from Macedonia included Blagoj Popov, president of the executive council of the Macedonian Assembly and representatives of the Macedonian Economic Chamber and the Economic Bank of Skopje. Delegations were informed of current problems in socio-economic development and measures for resolving them. Special attention was given to long-term cooperation based on self-management associating of labor and resources. Joint interest exists especially in the agricultural complex, in the chemical and textile industries, in ferrous metallurgy, machine-building, construction, electric power and internal transport. The delegations concluded that cooperation should be further deepened and experiences exchanged in the area of developing the small-scale economy. [Excerpts] [Belgrade BORBA in Serbo-Croatian 24 Jun 79 p 2]

DALMATIAN TOURISM LOSSES--The Dalmatian economy in the first 3 months of this year increased losses by 23.4 percent over the same period last year. In first place in regard to losses in the first 5 months of this year in Dalmatia is the tourist and hotel and restaurant sector. Losses here increased by 12.5 percent over the same period last year. In analyzing losses in the operation of tourist-lodging and restaurant organizations in Zadar and Sibenik, the price rise of some basic products and increased cost of producer goods which rose faster than planned, contributed to increasing losses. In addition, the tourist trade in the first quarter of the year and even up to now has not been favorable. In the Zadar area there were 45 percent fewer overnight stays by foreign guests during May compared to May 1978; and 11 percent

fewer overnight stays in the first 5 months of this year than last year. It is worrying that in almost the entire Dalmatian area the largest trend toward increasing losses has been seen in large tourist enterprises, in which a number of subjective weaknesses are having a negative effect on operations. [Excerpts] [Belgrade BORBA in Serbo-Croatian 28 Jun 79 p 2]

KOSOVO SELF-MANAGEMENT AGREEMENTS--The process of associating production and trade organizations of associated work in Kosovo is seen in the number of self-management agreements concluded. In 1978, 266 self-management agreements were registered which were concluded between trade organizations in Kosovo with 325 production organizations in Kosovo and throughout the country. Most (106) were concluded with production organizations in Kosovo; but 89 were concluded with production organizations in Serbia, 34 with such organizations in Croatia, 28 in Vojvodina, 26 in Macedonia, 24 in Slovenia, 14 in Bosnia-Hercegovina, and 4 in Montenegro. Most agreements were concluded with organizations of associated work in the food industry, followed by agreements with producers of textiles, fruit and vegetables, construction materials, electric household appliances, etc. Not one agreement was concluded between trade enterprises and producers of milk, meat and other basic food products. Kosovo trade organizations also concluded 39 self-management agreements on associating work and resources with 49 production organizations. [Excerpts] [Belgrade EKONOMSKA POLITIKA in Serbo-Croatian 18 Jun 79 p 11]

EMPLOYMENT AID RETURNEES--There have been very meager results up to now in committing personal funds of workers temporarily working abroad to provide employment in Bosnia-Hercegovina. Only 650 workers have invested part of their savings in about 20 organizations of associated work. Most of these returnees are in the Plastika plant in Livno where 181 are now working. An additional 120 workers are expected to be employed in the same way in this factory. The Polivinil enterprise in Posusje employs 70 such returnees and there are 40 returnees in three enterprises in Brcko. The Buducnost enterprise in Bosanski Samac has concluded contracts with 150 and has offered jobs to 80 returnees. The Razvitak enterprise in Doboij launched a competition to finance construction of an interior design enterprise, figuring on the foreign-exchange participation of 120 workers, but up to now only 65 applications have been received. Perhaps the reason for such a small number of workers interested in investing their funds in factory construction and the creation of new jobs should be sought also in the fact that only 40 opstinas in Bosnia-Hercegovina have adopted programs for gradually returning workers from abroad. [Excerpts] [Belgrade EKONOMSKA POLITIKA in Serbo-Croatian 18 Jun 79 p 32]

DECLINING COAL PRODUCTION--Coal mines, especially underground mines, are in an unfavorable economic position which is worsening. In most mines, especially pit mines, production is stagnating or falling. Of the 37 active mines, production is increasing in only 10 and in only four mines is production more than 100,000 tons [annually]. Most mines have a manpower shortage (a 30-percent turnover during the year) because of difficult working conditions and low pay, and the difficult material position of these mines

has made larger investments in mechanization impossible. Compared to other countries, our labor productivity in hard coal production is 20 to 80 percent lower, in brown coal production as much as 40 percent lower, and in lignite production as much as 75 percent lower. A series of measures were submitted to the FEC (Federal Executive Council) to provide funds for modernization, to establish lower tariffs on imported equipment, and to grant credits for coal reserves. [Excerpts] [Belgrade EKONOMSKA POLITIKA in Serbo-Croatian 18 Jun 79 p 14]

INDUSTRIAL PRICE INCREASE--In June prices of industrial products increased 1.4 percent over May and increased 7.4 percent compared to December 1978. The highest increase was in prices of goods for personal consumption which increased 1.6 percent over May, producer goods increased 1.2 percent and machinery and equipment 0.6 percent. [Excerpts] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 10 Jul 79 p 8]

RETAIL PRICES IN JUNE--Retail prices in June increased 1.8 percent over May and 11.8 percent over December 1978; and compared to the average price increase last year, June prices were 20.7 percent higher and 21.6 percent higher than those in June 1978. This June increase came about as a result of the following increases: agricultural products 4.1 percent, alcoholic beverages 3.7 percent and services 2 percent. In regard to services, prices of transportation and PTT (postal, telephone, telegraph) services increased 3.1 percent over May, artisan services 1.6 percent and utilities 1.2 percent. The cost of living increased 2.9 percent over May and 13.5 percent over December 1978, and 21.2 percent over June 1978. Food costs rose most, namely, by 4.7 percent, followed by beverages and tobacco (1.9 percent), shoes and clothing (1.3 percent), housing 1.1 percent and health care (1.3 percent). [Excerpts] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 10 Jul 79 p 8]

HIGHER PENSIONS IN KOSOVO--As of 1 July pensions in Kosovo will increase 4.8 percent, because of the increased cost of living in the first half of this year. This will not apply to those with pensions over 13,800 dinars [annually]. [Excerpts] [Belgrade BORBA in Serbo-Croatian 1 Jul 79 p 2]

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